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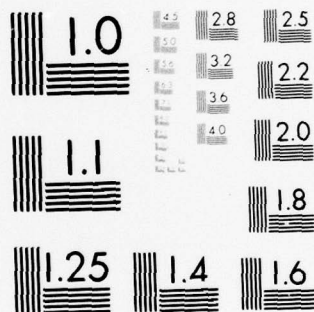
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THE ENLISTED REQUIREMENTS PLANNER (ENREP)

10
Diane W. Schulte

15 N00014-76-C-0001

9 Research contribution

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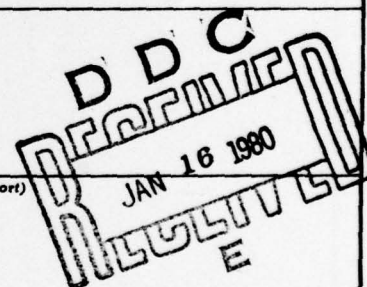
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REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER CRC 358	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) The Enlisted Requirements Planner (ENREP)		5. TYPE OF REPORT & PERIOD COVERED
		6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) Diane W. Schulte		8. CONTRACT OR GRANT NUMBER(s) N00014-76-C-0001
9. PERFORMING ORGANIZATION NAME AND ADDRESS Center for Naval Analyses 2000 N. Beauregard Street Alexandria, Virginia 22311		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS Office of Naval Research Department of the Navy Arlington, Virginia 22217		12. REPORT DATE October 1978
		13. NUMBER OF PAGES 219
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) Office of the Chief of Naval Operations Department of the Navy Washington, D.C. 20350		15. SECURITY CLASS. (of this report) Unclassified
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited.		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES This <u>Research Contribution</u> does not necessarily represent the opinion of the Department of the Navy.		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) computer programs, enlisted personnel, ENREP (Enlisted Requirements Planner), manpower, models, NARM (Navy Resource Model), Naval personnel, personnel, projection, requirements		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) ENREP projects enlisted manpower requirements by rating and paygrade for any given set of ship and aircraft force levels for the 15 years covered by the POM and EPA. It adds the dimension of quality of personnel to projections of requirements and can be used to assess the effects of alternative force mixes and manning policies on requirements. ENREP draws figures for ship and aircraft forces and their corresponding manning factors from the Navy Resource Model (NARM), and a normalized distribution of ratings and paygrades from the Enlisted Billet File. The user can override these		



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20 inputs and moreover change the assumptions of the projection.

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1. Enclosure (1) is forwarded as a matter of possible interest.
2. This Research Contribution describes an Enlisted Requirements Planner (ENREP) that projects Navy enlisted requirements by rating and paygrade, and by rating and length of service, for up to 15 years. The projection responds to changes in the numbers of ship and aircraft forces and their manning and support levels. ENREP should be of interest to resource managers, manpower planners, and program planners.
3. Research Contributions are distributed for their potential value in other studies and analyses. They do not necessarily represent the opinion of the Department of the Navy.

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PREFACE

The Enlisted Requirements Planner (ENREP) projects Navy enlisted requirements by rating and paygrade, and by rating and length of service, for up to fifteen years. The ENREP projection is responsive to changes in the numbers of ship and aircraft forces and their manning and support levels. ENREP can be useful to a resource manager who needs to know such things as the effect on enlisted requirements of adding an aircraft carrier or of increased manning on strategic submarines. ENREP is also used to set manpower goals for the PROPHET system for projection of inventories (CNA Research Contribution 346). And because of the extended time span, ENREP can be used for long-range planning such as the Extended Planning Annex (EPA) to the Program Objectives Memorandum (POM).

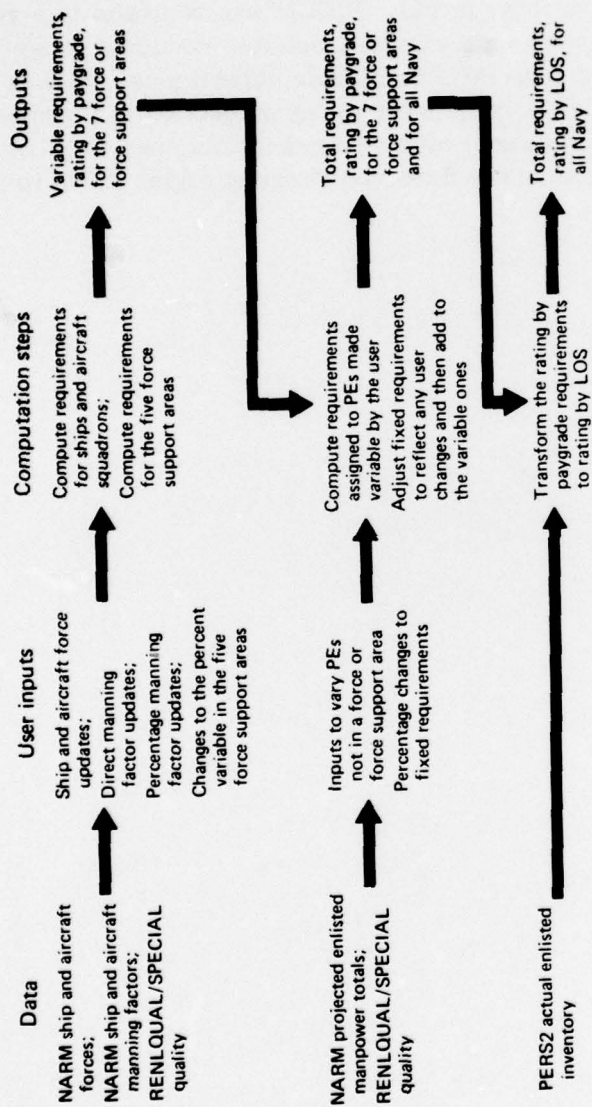


FIG. 1: OVERVIEW OF THE ENREP SYSTEM

THE ENREP SYSTEM

ENREP consists of five preliminary routines and the main projection routine, PLANNER. Each preliminary routine prepares a particular input for ENREP. PLANNER accepts any user inputs and the outputs of the preliminary routines and makes a projection.

DATA

The ENREP system relies on the following data sources:

1. Navy Resource Model (NARM)
 - a. ship and aircraft forces
 - b. ship and aircraft manning factors
 - c. projected enlisted manpower totals.
2. Enlisted billet file, RENLQUAL/SPECIAL: rating by paygrade distributions
3. Pers-2: enlisted inventory.

The NARM provides inputs for ENREP by program element (PE) and program unit (PU) codes. The enlisted billet file, RENLQUAL/SPECIAL, provides inputs for ENREP by activity type (ACT) and PE codes.

Program elements are the smallest building blocks in the Navy's Five-Year Defense Plan (FYDP). Examples are ships by function, such as missile frigates; aircraft squadrons by function, such as A-7 squadrons; and RDT&E by project, such as gun systems development program.

Program unit codes provide detailed definition of force units. Ship forces are identified by status, type, class, and major claimant. Aircraft forces are identified by status, type, model, series, and major claimant. Examples are active submarines, Polaris class, Pacific Fleet; and active attack planes, model 7, series E, Atlantic Fleet. The ENREP system aggregates PU codes across major claimant because claimants do not provide additional information about the actual ships or aircraft.

Activity type codes identify ship type and type of aircraft squadron. Examples are destroyers and readiness squadrons. This code provides more information about aircraft squadrons. For example, the PE code for direct support squadrons does not distinguish between aircraft and helicopters, but the ACT code does.

The manning factors from the NARM specify the number of personnel required onboard and in the force support areas of base operations, training, medical support, recruiting and examining, and individual support (transients, patients and prisoners, and personnel holding account). The factors for force support areas are identified by the PE and PU of

the force unit they support, but the manpower is assigned to PEs in the respective support areas. Therefore, it is not possible to distinguish between support manpower for carriers as opposed to fighter squadrons, frigates as opposed to minesweepers, etc. This immediately establishes PE as the lowest level of detail for the ENREP system as a whole. In sum, these NARM inputs become the quantitative basis of the ENREP system.¹

The enlisted billet file, RENLQUAL/SPECIAL, is the qualitative basis of the ENREP system.²

The NARM and the RENLQUAL/SPECIAL file share a common descriptor, PE code, but this code alone does not capture the differences between the various ships or aircraft assigned to a single PE. ENREP uses all three codes -- ACT, PE, and PU -- to describe forces and their manpower. What results is best described by an example. A class 1040 frigate and a class 1052 frigate, assigned to the PE non-missile frigates, have manning factors of 247 and 245, respectively. But the quality of men onboard these two classes of ships, and all other non-missile frigates, is identical. Similarly, an attack plane, such as the A-7E, and another of the same model but different in series, such as the A-7A, are assigned to the same PE, have different manning factors, but have identical quality. That is, for an ACT/PE/PU combination, the manning factor is determined by the PE/PU and the quality is determined by the ACT/PE. Note that the PE/PU uniquely determines the manning factors and the corresponding ACT code, but the ACT/PE can have several PU codes and each will have the same quality. The ENREP system uses the PE code alone to describe all manpower requirements not assigned to ship or aircraft forces.

Dictionaries of ACT/PE/PU combinations are in appendix A. The ship ACT/PE/PU dictionary details the association between ship ACT codes, PE codes and PU codes, and identifies the ship's type and class by name. The aircraft ACT/PE/PU dictionary does the same for aircraft. The entries in each dictionary are arranged by ACT code, then by PE code, and lastly by PU code, all in ascending order. This order must be maintained when new entries are added.

Nearly every ENREP routine requires the ship and aircraft ACT/PE/PU dictionaries and they should be stored on a convenient medium to be readily available.

¹ NARM data files are available from Op-901M.

² RENLQUAL/SPECIAL files are available from Op-102C.

The enlisted inventory file from Pers-2 contains a count of the active personnel at the end of the previous fiscal year by rating, paygrade, and length of service (LOS). ENREP uses these counts to translate its final rating by paygrade requirements into rating by LOS requirements.

USER INPUT OPTIONS

ENREP provides the user with six options that may be exercised to modify source data and projection procedures:

1. Ship and aircraft force updates
2. Direct manning factor updates
3. Percentage manning factor updates
4. Changes to the variable percentage in the five force support areas
5. Ability to vary PEs not in a force or force support area
6. Percentage changes to the fixed requirements.

All modifications are effective for only one run of the model, and do not make any permanent changes to the data base.

The first option enables the user to modify and add to the NARM forces, or to create a hypothetical force mix. The user must specify the ACT, PE, and PU codes of the force unit, and the number of units in each year. ENREP allows 200 force unit updates.

The second option enables the user to directly override any of the six NARM manning factors for a particular force unit. The six factors are onboard, base operations, training, medical support, recruiting and examining, and individual support. For each override the user must specify the factor, the corresponding force unit, the range of years affected and the replacement factor value. ENREP allows for 100 direct factor updates.

The third option enables the user to make a percentage change in any NARM manning factor for a group of force units. For each percentage change the user must specify the factor, the force units in the group (maximum of 20), the years affected, and the percentage change in the factor value. ENREP allows for 50 percentage factor updates.

The fourth option enables the user to change the variability of any of the five force support areas -- base operations, training, medical support, recruiting and examining, and individual support. ENREP first calculates the percent that each force support area varies with the NARM forces and displays them for the user. To change one of these percents, the user must specify the force support area, the years affected, and the replacement variable percent. ENREP allows the user to change the variable percent for each force support area, in each year of the projection.

The fifth option enables the user to vary a group of program elements with the forces and their manning factors. These program elements, such as logistics or research and development, are normally fixed, or independent of forces. Any program element that is not in a force or a force support area can be modeled in this way. For each variation the user must specify the members of the group (maximum of 10), the percent to be variable, and a proxy to measure the variability. The proxy is any combination of ship forces, air forces, and the five force support areas. ENREP calculates the total variable requirement, by year, for ship forces, air forces, and the force support areas based on the NARM forces and factors and uses them as a base case. When ENREP responds to this option, it compares the total variable requirement for the proxy in the current run to that in the base case. The same percentage change is made to the variable component of the user's group. For example, assume the group is to be 20 percent variable and its proxy increased 10 percent. Then ENREP would increase the group's requirements 10 percent of 20 percent or 2 percent. ENREP allows the user to vary up to 10 groups of PEs.

The final option enables the user to adjust fixed requirements. A percentage increase or decrease in the standard ones can be specified for each year in the projection.

PROJECTION METHODS

ENREP estimates enlisted requirements for each projection year in five steps:

1. Computes requirements for personnel assigned to ships and to aircraft squadrons;
2. Computes requirements for personnel assigned to force support PEs;
3. Computes requirements for personnel assigned to PEs which the user has defined as variable but are not in a force or force support area;
4. Adds fixed requirements to variable ones; and
5. Transforms the resulting requirements from a rating by paygrade distribution to a rating by LOS distribution.

In the first step, the distribution of ratings and paygrades specified by the RENLQUAL/SPECIAL file is scaled to equal the onboard NARM manning factor for each ACT/PE/PU combination. (Recall that the user can override this factor.) The result is the enlisted strength required to man one ship or aircraft of the given class or series. Multiplying the requirements for each rating and paygrade by the corresponding number of ships or aircraft gives the total requirements for the ACT/PE/PU combination. Summing over all combinations yields one year's projection of force manpower.

In the second step, the enlisted requirements assigned to force support PEs are computed. These PEs constitute the following force support areas: base operations, enlisted training, medical support, recruiting and examining, and individual support. The procedure is similar to step one. For each ACT/PE/PU combination, the number of ships or aircraft is multiplied by the corresponding manning factor. This gives the number of enlisted personnel required by the current forces in each support area. If the user changes the percent of the support area that is normally variable, ENREP increases or decreases the variable requirements by the percent change divided by the normal percent variable, and also makes an offsetting change in the fixed endstrength of each PE. When the variable endstrength for a support area is computed, the RENLQUAL/SPECIAL file's distribution of ratings and paygrades is used to define the quality of each PE and the proportion of requirements among PEs. These billet requirements are scaled to the computed endstrength, maintaining the quality of each PE and the proportion of the requirements among the PEs. The resulting requirements are summed over all support areas to produce the force support manpower for one year in the projection.

In the third step, the enlisted requirements assigned to PEs which the user has specified as variable are computed. Since the requirements assigned to these PEs do not vary in the NARM, manning factors per ship and per aircraft do not exist; but the NARM does estimate the total endstrength for each PE as a fixed requirement. The user specifies the variable percentage of each PE and proxy requirements to measure changes to the variable portion. The user may choose any combination of the following requirements as a proxy: ship forces, aircraft forces, enlisted training, medical support, recruiting and examining, and individual support. To compute the variable requirements for a PE which is not variable in the NARM, ENREP multiplies the total endstrength by the percent that the user considers variable, yielding the variable endstrength associated with the NARM forces. The difference between total and variable endstrengths is the fixed endstrength for the PE. Next, the variable endstrength is adjusted by ENREP to reflect the current force levels. It determines the percentage change in the variable manpower required in the proxy by the current forces from that required in the proxy by the NARM forces. The same percentage increase or decrease is then made in the NARM variable endstrength, giving the variable endstrength which the current forces require in the PE. The ratings and paygrades of each PE are obtained from the RENLQUAL/SPECIAL file, and their total is scaled to equal the variable endstrength. For example, the user may vary 20 percent of the ship overhaul PE requirements using the ship forces and base operations as a proxy. Then if these proxy variable requirements increased 10 percent, requirements in ship overhaul PEs would increase 10 percent of 20 percent or 2 percent. Summing the resulting requirements for all of these PEs completes one year's projection of variable manpower.

In the fourth step, the projection of all-Navy enlisted requirements is completed by adding fixed requirements, rating and paygrade, to the variable ones in each PE. To find the fixed requirements, the variable endstrength required by the NARM forces, as computed in steps one and two, is subtracted from the total endstrength in the NARM for each PE in each year. To simulate NARM computations, ENREP uses the NARM forces and manning factors. The differences between the NARM total endstrengths and the ENREP variable endstrengths are assumed to be the fixed endstrengths for each PE. The quality for each PE is obtained from the RENLQUAL/SPECIAL file. In each subsequent projection, ENREP first increases or decreases the fixed requirements for each PE by the user percentage change, if given, and then adds them to the variable ones. The fixed requirements of the fifth year are used for the EPA years.

In the final step, the requirements just computed are transformed from the rating by paygrade distribution to a rating by LOS distribution. Within each rating, the number of personnel in a paygrade are spread across LOS reflecting the current Navy inventory, as obtained from Pers-2. The resulting rating by LOS requirements are displayed after the rating by paygrade requirements on the output listing.

OUTPUTS

The primary printed output of the ENREP system is enlisted requirements, rating by paygrade, for up to 16 years, including the current year. These requirements reflect the user inputs to force levels, manning policies, and projection procedures. The requirements are also written on a tape file with the additional dimension of PE, and transformed from a rating by paygrade distribution to a rating by LOS distribution, and displayed on a printed listing. As ENREP proceeds through the computation steps, it also displays variable and total requirements, rating by paygrade, for seven subsets of the Navy -- ship forces, aircraft forces, base operations, training, medical support, recruiting and examining, and individual support. In summary, the outputs are:

1. All-Navy total enlisted requirements, rating by paygrade, on the listing
2. All-Navy total enlisted requirements, PE by rating by paygrade, on a tape file
3. All-Navy total enlisted requirements, rating by LOS, on the listing
4. All-Navy variable enlisted requirements, rating by paygrade, on the listing
5. Variable requirements, rating by paygrade, for seven subsets of the Navy on the listing
6. Total requirements, rating by paygrade, for seven subsets of the Navy on the listing.

INDIVIDUAL ENREP ROUTINES

PRELIMINARY ROUTINES

The ENREP system contains five preliminary routines which create the system's data base. Each of these routines -- EXTRACT, FORCES, FACTORS, SUPPORT, and TOTAL -- will be discussed in this section. Figure 2 illustrates the relationship between these routines and the main routine PLANNER.

EXTRACT

Routine EXTRACT reads the enlisted billet file, RENLQUAL/SPECIAL, and writes the ENREP version, RENLQUAL/EXTRACT. Its purpose is to delete information not used in the ENREP system from each record, reducing the size of each record from 350 to 144 characters.

The input to EXTRACT is the RENLQUAL/SPECIAL file. Outputs of EXTRACT are:

1. RENLQUAL/EXTRACT file, stored on magnetic tape
2. Count of input and output records
3. Listing of every thousandth record, both input and output versions.

The program listing and flowchart are in appendix B and sample output is in appendix C.

The RENLQUAL/SPECIAL file is sorted by the BuPers unit identification code (BUIC). Some routines in the ENREP system require the RENLQUAL/EXTRACT file to be sorted by PE code and then by ACT. In other routines, the RENLQUAL/EXTRACT file must be sorted by ACT and then by PE. A standard system sort routine should be used to create these versions of the file, called RENLQUAL/PEACT and RENLQUAL/ACTPE, respectively.

Although the RENLQUAL/SPECIAL file is produced monthly, the ENREP system requires only an annual update. That is, the procedures described above need only be executed once per year, using the end fiscal year file of 30 September.

FORCES

Routine FORCES reads the ship or aircraft forces from the NARM/FORCES/SHIP or NARM/FORCES/AIRCRAFT file and writes the ENREP/FORCES/SHIP or ENREP/FORCES/AIRCRAFT file. There are two versions of this routine, one for ship forces and the other for aircraft forces. FORCES performs the following five steps:

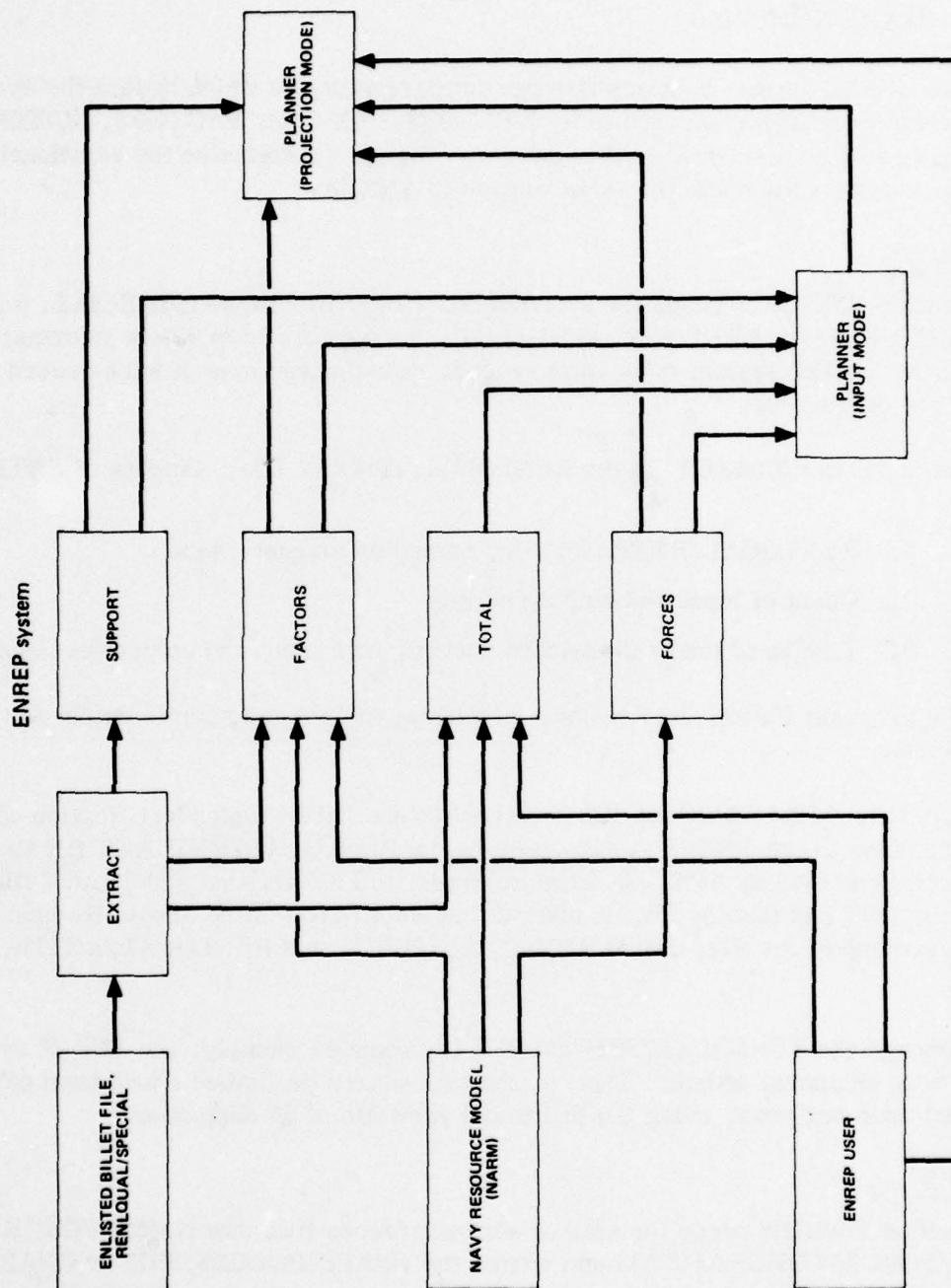


FIG. 2: OVERVIEW OF THE ENREP ROUTINES

1. Reads the NARM forces by PE/PU for each of the five years in the POM, replicating the last year's forces throughout the 10 EPA years;
2. Aggregates the forces across major claimant, a part of the PU code;
3. For aircraft only, deletes Marine forces and non-squadron Navy forces because their manning factors are not computed by the NARM;
4. Adds the ACT code associated with each PE/PU pair; and
5. Writes a file of force inputs for the projection routine, PLANNER.

The POM is updated twice annually and the two FORCES routines should be run with each update.

Inputs to FORCES are:

1. NARM/FORCES/SHIP or NARM/FORCES/AIRCRAFT file
2. Ship or aircraft ACT/PE/PU dictionary.¹

Outputs of FORCES are:

1. ENREP/FORCES/SHIP or ENREP/FORCES/AIRCRAFT file, which contains forces for 16 years
2. Listing of ship or aircraft forces.

The program listing and flowchart are in appendix B. An unclassified (arbitrary) sample output is in appendix C.

FACTORS

Routine FACTORS combines the NARM manning factors and the RENLQUAL/ACTPE file quality (rating by paygrade distribution) to create a unit requirements matrix for each combination of ACT/PE/PU. These requirements are the number of personnel in each rating and paygrade required onboard one ship or aircraft described by the ACT, PE and PU codes. This routine must be run twice, once for ships and once for aircraft, each year when the NARM factors are updated.

The first step in creating these unit requirements matrices is to read the NARM factors -- onboard, base operations, training, medical support, recruiting and examining, and individual support -- from the NARM/FACTORS/SHIP or the NARM/FACTORS/AIRCRAFT file. These factors are read for each PE/PU pair, averaging across major claimants. Then FACTORS adds the ACT code associated with each PE/PU pair. In the second step, FACTOR reads the RENLQUAL/ACTPE file and compiles a matrix

¹ Listed in appendix A.

of billets, rating by paygrade by year, for each ACT/PE pair. In general, there are several NARM PE/PU pairs for each quality matrix. The onboard manning factor for each PE/PU pair is spread over the ratings and paygrades of the quality matrix in each year. The result is a unit requirements matrix for each ACT/PE/PU combination for each year in the POM. Note that manning factors do not vary across years but quality does. These matrices and the corresponding force support factors, without quality, are written on the ENREP/UNITREQ/SHIP or the ENREP/UNITREQ/AIRCRAFT file for input to PLANNER.

FACTORS also enables the user to create unit requirements matrices for ships or aircraft not in the NARM file. This option is useful in long range planning where new forces which are not defined in the standard inputs enter the fleet. The user must specify the ACT, PE, and PU codes for the new force unit, the factors for onboard and force support manning, and the quality proxy from the ACT/PE pairs on the billet file. In addition, the user must add the new ACT/PE/PU combination to the ship or aircraft dictionary.

A variation of this option is used if there are PE/PU pairs in the NARM file which do not have a corresponding ACT/PE pair in the billet file. In these cases, the user need only identify the quality proxy.

The inputs to FACTORS are:

1. RENLQUAL/ACTPE file
2. NARM/FACTORS/SHIP or NARM/FACTORS/AIRCRAFT file
3. Ship or aircraft ACT/PE/PU dictionary
4. List of new force units, their manning factors, and quality proxies
5. List of PE/PU pairs needing quality and their quality proxies.

The output of FACTORS is the ENREP/UNITREQ/SHIP or ENREP/UNITREQ/AIRCRAFT file, which contains the unit requirements matrix and force support factors for each combination of ACT/PE/PU, for each year in the POM.

The program listing and flowchart are in appendix B and a sample input and a sample output are in appendix C.

A simple routine named FACTORS/UTILITY combines the ENREP/UNITREQ/SHIP file and the ENREP/UNITREQ/AIRCRAFT file to create the ENREP/UNITREQ/ALL file. This action reduces the number of tape drives required when PLANNER is executed. A sample listing is also shown in appendix B.

SUPPORT

Routine SUPPORT creates a quality matrix for each PE of the five support areas -- base operations, training, medical support, recruiting and examining, and individual support. SUPPORT simply reads the RENLQUAL/PEACT file and compiles a quality matrix of billets, rating by paygrade by year, for each PE in the force support areas. Then these matrices are arranged by support area and written to the ENREP/SUPPORT/QUALITY file for input to PLANNER. Since the support quality is identical for all ships and aircraft, support manning factors are spread across these quality matrices in PLANNER to reduce the size of the data base.

The input to SUPPORT is the RENLQUAL/PEACT file.

The outputs of SUPPORT are:

1. ENREP/SUPPORT/QUALITY file, which contains the quality matrix for each PE in the force support areas, for each year in the POM
2. Listing of those quality matrices.

The program listing and flowchart are in appendix B and a sample output is in appendix C.

TOTAL

Routine TOTAL combines the NARM projected enlisted totals with the RENLQUAL/PEACT file quality to create a total requirements matrix for each PE in each year of the POM. These requirements are the total number of personnel in each rating and paygrade, by PE and year. PLANNER subtracts the variable requirements it computes using NARM inputs from these total requirements to compute fixed requirements by PE and year.

TOTAL reads the RENLQUAL/PEACT file and compiles a quality matrix of billets for each PE and year. Then it spreads the corresponding NARM total from the NARM/ENLTOTALS file across the quality matrix and writes the resulting total requirements matrix on the ENREP/TOTALREQ file for PLANNER. TOTAL can also display the billet quality unchanged by not using the NARM input.

Usually, there are some PEs on the NARM file which do not have a quality matrix in the RENLQUAL/PEACT file. A TOTAL option enables the user to specify a PE which has a quality matrix as a proxy for a PE which does not. Generally, a user will not know which PE codes require this input until TOTAL has been run once and identifies them. This option can also be used to replace the quality matrix of a PE with that of another PE. Another TOTAL option enables the user to alter the quality matrix of a PE by multiplying all billets of a particular rating by an input scaling factor.

Inputs to TOTAL are:

1. RENLQUAL/PEACT file
2. NARM/ENLTOTALS
3. List of PEs needing a quality matrix and their proxy PEs
4. List of ratings and their scaling factors for each PE whose quality is being altered.

Outputs of TOTAL are:

1. ENREP/TOTALREQ file, which contains the total requirements matrix for each PE in each year of the POM
2. Display of NARM projected enlisted totals by PE and year
3. Display of the all Navy requirements by rating, paygrade, and year.

The program listing and flowchart are in appendix B, and a sample input and output are in appendix C.

The output file, ENREP/TOTALREQ, must be sorted by PE code within each year. A standard system sort routine should be used to create the ENREP/TOTALREQS version of this file.

MAIN ROUTINE PLANNER

The most important and complex module of the ENREP system, PLANNER, has two distinct modes of operation. In the first mode, it operates as an input routine, generating fixed requirements for each PE and year and computing statistics to describe the variability of force and force support program elements. In the second mode, it acts as a projection routine, combining inputs from the preliminary routines, the user, and itself to project enlisted requirements. These requirements are described by rating and paygrade and by rating and length of service (LOS) over a fifteen year time span.

Input Mode

The inputs to PLANNER, input mode, are:

1. ENREP/FORCES/SHIP and ENREP/FORCES/AIRCRAFT files, which contain ship and aircraft forces (FORCES)
2. ENREP/UNITREQ/ALL file, which contains the ship and aircraft unit requirements matrices and support manning factors (FACTORS)

3. ENREP/SUPPORT/QUALITY file, which contains the force support quality matrices (SUPPORT)
4. ENREP/TOTALREQS file, which contains the total requirements matrices (TOTAL)
5. Ship and aircraft ACT/PE/PU dictionary (User).

These inputs are described in detail in the previous section.

PLANNER assumes that the total requirement for a PE has a fixed and a variable component, although one of the components may be zero. The total requirements, rating by paygrade for each PE, are obtained from TOTAL. These requirements quantitatively reflect the NARM and qualitatively reflect the RENLQUAL file. PLANNER calculates the variable component for each PE using the NARM forces, NARM manning factors, and the RENLQUAL file quality obtained from FORCES, FACTORS, and SUPPORT. In the input mode, PLANNER does not accept user modifications to the NARM and RENLQUAL file inputs or to the procedure used to calculate the variable components. It subtracts the variable component from the total requirement, yielding the fixed component for each PE, in each year of the POM. These fixed requirements and the statistics on force and force support variability are saved for later use by PLANNER in the projection mode. Note that the calculation of variable requirements is identical regardless of the operational mode, except that in the input mode user modifications are not accepted.

The outputs of PLANNER, input mode, are:

1. ENREP/FIXEDREQ file, which contains the fixed requirements matrices
2. ENREP/PLANNER/STATS file, which contains the force and force support variability statistics.

Projection Mode

The standard inputs to PLANNER, projection mode, are:

1. ENREP/FORCES/SHIPS and ENREP/FORCES/AIRCRAFT files, which contain the ship and aircraft forces (FORCES)
2. ENREP/UNITREQ/ALL file, which contains the ship and aircraft unit requirements matrices and support manning factors (FACTORS)
3. ENREP/SUPPORT/QUALITY file, which contains the force support quality matrices (SUPPORT)
4. ENREP/FIXEDREQ file, which contains the fixed requirements matrices (PLANNER)
5. ENREP/PLANNER/STATS file, which contains the force and force support variability statistics (PLANNER)

6. Ship and aircraft ACT/PE/PU dictionary (User)
7. PERS2/ENLINVEN file, which contains the enlisted inventory (Pers-2).

The user inputs to PLANNER, projection mode, are:

1. Ship and aircraft force updates
2. Direct manning factors updates
3. Percent manning factor updates
4. Changes in the variable percentage of the five force support areas
5. Inputs to vary PEs not in a force or force support area
6. Percentage changes in the fixed requirements.

These inputs are described in detail in the "User Input Options" section.

PLANNER reads and displays all user inputs. Next, it reads the ship or aircraft force input for each ACT, PE, and PU combination, in each year. These forces are modified to reflect any user force updates and displayed to document the run.

PLANNER repeats the following procedures consecutively for each year in the projection. First, it computes the manpower assigned to ships and to aircraft squadrons. It reads the rating by paygrade unit requirements matrix for each ACT, PE, and PU combination, and then modifies these matrices to reflect any user factor updates. Then the unit requirements are multiplied by the corresponding number of units and the results are added to the other requirements for the PE.

Manpower assigned to force support is calculated similarly. PLANNER reads the five support manning factors for each force ACT, PE, and PU combination, and then modifies these factors to reflect any user updates. Then each factor is multiplied by the corresponding number of force units, yielding the number of enlisted personnel required by the current forces in each support area. PLANNER uses the force support quality matrices to proportion each endstrength among the PEs of its support area, and to define the quality within each PE. Lastly, if the user has changed the variable percentage of a force support area, the variable requirements for that area are increased or decreased by the percentage change divided by the usual variable percentage. This yields enlisted requirements by rating, paygrade, and PE in each force support area.

To complete the computation of variable requirements, PLANNER calculates them for the PEs which are not in a force or force support PE but are to vary in response to the user's inputs. For each of these PEs, PLANNER multiplies the total endstrength by the percent the user considers variable, yielding the variable endstrength associated with the NARM forces. The difference between the total and variable endstrengths

becomes the fixed endstrength for the PE. Next, PLANNER adjusts the variable endstrength to reflect the current forces. It calculates the percentage change in the variable manpower required in the proxy by the current forces from that required in the proxy by the NARM forces. The same percentage change is made to the variable endstrength. The result is spread across the quality dimensions, yielding the manpower required by the current forces in this PE with the current set of user options.

To complete the projection, PLANNER adds the fixed requirements to any variable ones in each PE. These fixed requirements are calculated by PLANNER operating in the input mode, and are subject to user modification. The user may specify a percentage increase or decrease in fixed requirements, in every year. Also, if the user had specified a change in the percent a force support area is variable, PLANNER makes the complementary change to the fixed requirements for that support area at this time. This completes the projection for one year. The total requirements are displayed on a listing by rating and paygrade and are written to the ENREP/FINAL file by PE, rating, and paygrade.

PLANNER can translate the quality of its projections from rating by paygrade to rating by LOS. For each rating, it reads the actual inventory by paygrade and LOS. Then for each paygrade, it calculates the distribution across the LOS cells. The number of requirements in each rating and paygrade combination is spread across LOS using the corresponding distribution and the results are summed by rating and LOS. This version of the projection is also displayed on the listing.

A listing of the PLANNER routine and a flowchart are in appendix B. Sample inputs and outputs are in appendix C.

SUBROUTINE MOVE

Nearly every routine in the ENREP system requires subroutine MOVE, a general purpose ALGOL algorithm which performs character manipulation. The statement

```
CALL MOVE (X, I, Y, J, K)
```

causes the K characters, beginning at position I, of array X to be inserted into array Y, beginning at position J. Array X is never changed. For example, if

```
X(1) = AAAAAA
```

```
X(2) = BBBB
```

```
Y(1) = CCCCCC
```

```
Y(2) = DDDDD
```


and the statement

CALL MOVE (X, 5, Y, 2, 6)

is executed, the results are

X(1) = AAAAAA

X(2) = BBBB

Y(1) = CAABBB

Y(2) = BDDDD.

APPENDIX A

DICTIONARIES OF ACT/PE/PU CODES
FOR SHIPS AND AIRCRAFT

ANNEX A-1

DICTIONARY OF ACT/PE/PU CODES
FOR SHIPS

ACT CODE	PE CODE	PU CODE	SHIP NAME
123	242972	117201	AD-26CL
123	242972	117203	AD-14CL
123	242972	117205	AD-37CL
123	242972	117206	AD-41CL
128	244412	116005	AE-21CL
128	244412	116006	AE-23CL
128	244412	116007	AE-26CL
133	244412	116104	AF-58CL
134	244412	116201	AFS-1CL
142	243132	116701	AG-153CL
142	243132	116703	AG-520 CL
142	421182	156701	AG-153CL
149	245612	116601	AGDS-1CL
152	655012	119401	AGEH-1CL
158	244122	117302	AGF-3CL
159	655012	110711	AGSS-555CL
159	655012	110713	AGSS-569CL
210	244412	116304	AD-51CL
210	244412	116306	AD-143CL
210	244412	116307	AD-177CL
210	244412	116308	AD-NEWCL
212	244412	116401	AGE-1CL
216	244412	116501	AGR-1CL
216	244412	116502	AGR-7CL
256	244512	117801	AR-5CL
256	244512	117804	AR-28CL

ACT CODE	PE CODE	PU CODE	SHIP NAME
284	244522	118701	ARS-5CL
284	244522	118702	APS-32CL
292	112222	116801	AS-19CL
292	112222	116802	AS-31CL
292	112222	116803	AS-33CL
292	242822	116801	AS-19CL
293	242822	116901	AS-11CL
293	242822	116902	AS-36CL
293	242822	116903	AS-39CL
297	245612	117001	ASR-7CL
297	245612	117002	ASR-21CL
306	244522	118902	ATF-21CL
306	244522	118903	ATF-95CL
306	244522	118904	ATF-148CL
317	244522	119001	ATS-1CL
329	655012	119301	AVM-1CL
350	655012	112801	AGFF-1CL
381	242912	111501	CG-10
381	242912	111502	CG-11
381	242912	111504	CG-4
381	242912	111505	CG-5
382	242912	111601	CGN-9
382	242912	111602	CGN-25
382	242912	111603	CGN-35
382	242912	111604	CGN-36
382	242912	111605	CGN-38

ACT CODE	PE CODE	PU CODE	SHIP NAME
381	242912	111608	CGN-42
384	242912	111802	CG-16
384	242912	111803	CG-26
403	241122	110204	CV-42
403	241122	110205	CV-43
403	241122	110206	CV-41
403	241122	110207	CV-59
403	241122	110208	CV-60
403	241122	110209	CV-62
403	241122	110210	CV-63
403	241122	110211	CV-63
403	241122	110212	CV-64
403	241122	110213	CV-66
403	241122	110214	CV-67
407	241122	110301	CVN-65
407	241122	110302	CVN-68
407	241122	110303	CVN-69
407	241122	110304	CVN-73
410	241122	110602	CVV-1CL
439	847412	110501	CVT-16CL
441	242922	112213	DD-47CL
441	242932	112208	DD-710CL
441	242932	112210	DD-931CL
441	242932	112211	DD-945CL
441	242932	112212	DD-963CL
442	242922	112301	DDG-35CL

ACT CODE	PE CODE	PU CODE	SHIP NAME
442	242922	112302	DDG-31CL
442	242922	112303	DDG-2CL
442	242922	112305	DDG-37CL
456	242952	112705	FF-1037CL
456	242952	112706	FF-1040CL
456	242952	112707	FF-1052CL
457	242942	113201	FFG-7CL
458	242942	112901	FFG-1CL
465	242812	113402	LSES-1CL
488	244112	113703	LCC-19CL
556	244112	113801	LHA-1CL
558	244112	113906	LKA-113CL
559	523662	114002	LPA-248CL
560	244112	114101	LPD-1CL
560	244112	114103	LPD-4CL
565	244112	114201	LPH-2CL
575	244112	114403	LSD-28CL
575	244112	114404	LSD-36CL
575	244112	114405	LSD-41CL
595	244112	114504	LST-1179CL
623	243022	115601	MSO-422CL
625	243022	115401	MCM-1CL
654	242962	114901	PG-84CL
654	242962	114902	PG-92CL
660	242962	115001	PHM-1CL
693	242812	110913	SS-563CL

ACT CODE	PE CODE	PU CODE	SHIP NAME
693	242812	110914	SS-572CL
693	242812	110915	SS-574CL
693	242812	110918	SS-580CL
697	242812	111001	SSN-571CL
697	242812	111002	SSN-575CL
697	242812	111003	SSN-578CL
697	242812	111004	SSN-585CL
697	242812	111007	SSN-594CL
697	242812	111008	SSN-597CL
697	242812	111009	SSN-637CL
697	242812	111010	SSN-671CL
697	242812	111011	SSN-685CL
697	242812	111012	SSN-688CL
697	242812	111013	SSN-NEWCL
706	112212	111101	SSBN-598CL
706	112212	111102	SSBN-608CL
706	112212	111103	SSBN-616CL
706	112212	111104	SSBN-627CL
706	112212	111105	SSBN-640CL
706	112282	111201	TPIDENT
1306	523782	128903	ATF-95CL RESERVE
1306	523782	128904	ATF-148CL RESERVE
1441	523502	122208	DD-710CL RESERVE
1441	523502	122211	DD-945CL RESERVE
1558	523662	123905	LKA-112CL RESERVE
1559	523662	124002	LPA-248CL RESERVE

ACT CODE	PE CODE	PU CODE	SHIP NAME
1559	523662	124003	LPA-249CL RESERVE
1623	523592	125601	MSO-422CL RESERVE
1623	523592	125602	MSO-428CL RESERVE
1623	523592	125603	MSO-508CL RESERVE
1625	523592	125401	PCM-1CL RESERVE
1654	523532	124901	PG-R4CL RESERVE

ANNEX A-2

**DICTIONARY OF ACT/PE/PU CODES
FOR AIRCRAFT**

ACT CODE	PE CODE	PU CODE	AIRCRAFT NAME
6628	523712	217815	HH-1K
6629	244532	217616	LH-46D
6629	244532	217619	CH-46D
6629	244532	217631	LH-4EA
6629	244532	226830	HH-3A
6629	244532	227235	SH-3A
6629	244532	227250	SH-3D
6629	244532	227469	CH-53E
6629	244532	228230	VH-3A
6629	244532	237233	SH-3G
6629	244532	277613	CH-4EE
6629	523792	226830	HH-3A
6631	242332	227235	SH-3A
6631	242332	227250	SH-3D
6631	242332	227251	SH-3H
6631	242622	227235	SH-3A
6631	242622	227250	SH-3D
6631	242622	227251	SH-3H
6631	242622	227499	RH-53X
6631	523322	227235	SH-3A
6631	523322	227250	SH-3D
6631	523322	237233	SH-3G
6632	243032	227485	CH-53E
6632	243032	227499	RH-53X
6635	242432	267275	SH-2F
6635	242432	277249	HSX(L)

ACT CODE	PE CODE	PU CODE	AIRCRAFT NAME
6635	242622	217619	CH-46D
6635	242622	217631	HH-46A
6635	242622	227469	CH-53E
6635	242622	227485	CH-53E
6635	242622	228230	VH-3A
6635	242622	237233	SH-3G
6635	242622	267255	SH-2D
6635	242622	267275	SH-2F
6635	242622	277249	MSX(L)
6635	351312	217005	HH-2D
6635	351312	283090	RP-3D
6695	241532	211220	RA-5C
6695	241562	211220	RA-5C
6705	241342	210813	KA-6D
6705	241342	220810	A-6E
6705	241352	230620	A-7E
6705	241352	230635	A-7B
6705	241352	230640	A-7A
6705	241362	280680	A-18
6705	241562	205297	TA-7C
6705	241562	210813	KA-6D
6705	241562	215620	T-39D
6705	241562	216020	T-28C
6705	241562	216050	T-28B
6705	241562	220810	A-6E
6705	241562	225430	T-2C

ACT CODE	PE CODE	PU CODE	AIRCRAFT NAME
6705	241562	230620	A-7E
6705	241562	230630	A-7C
6705	241562	230635	A-7B
6705	241562	230640	A-7A
6705	241562	236475	TC-4C
6705	241562	245230	TA-4F
6705	241562	250660	A-4F
6705	241562	250665	A-4E
6705	241562	280680	A-1E
6705	523112	250651	A-4L
6705	523132	230620	A-7E
6705	523132	230635	A-7B
6705	523132	230640	A-7A
6709	242512	222408	P-3C
6709	242512	232415	P-3B
6709	242512	232420	P-3A
6709	242622	222408	P-3C
6709	242622	232415	P-3B
6709	523412	232415	P-3B
6709	523412	232420	P-3A
6709	523412	252445	SP-2H
6710	241422	260279	F-4N
6710	241422	260284	F-4J
6710	241422	260295	F-4S
6710	241442	220210	F-14A
6710	241452	200220	F-1E

ACT CODE	PE CODE	PU CODE	AIRCRAFT NAME
6710	241562	200220	F-1E
6710	241562	215205	T-38A
6710	241562	220210	F-14A
6710	241562	235216	TA-4J
6710	241562	260279	F-4N
6710	241562	260284	F-4J
6710	241562	260295	F-4S
6710	241562	290274	F-5F
6710	241562	290275	F-5E
6710	523172	260279	F-4N
6710	523172	260292	F-4B
6710	523172	260295	F-4S
6716	244532	208409	DC-130A
6716	244532	225680	TA-3B
6716	244532	230640	A-7A
6716	244532	235216	TA-4J
6716	244532	238433	DP-2H
6716	244532	242425	EP-2H
6716	244532	250660	A-4F
6716	244532	250665	A-4E
6716	244532	257245	LH-3A
6716	244532	268423	DP-3A
6716	244532	272875	EP-3A
6716	523792	235216	TA-4J
6718	242342	222205	S-3A
6718	242622	222205	S-3A

ACT CODE	PE CODE	PU CODE	AIRCRAFT NAME
6762	241532	220210	F-14A
6762	241532	240435	RF-2G
6762	523252	240435	RF-2G
6763	241522	212605	E-2C
6763	241522	212615	E-2B
6763	241562	212605	E-2C
6763	241562	212615	E-2B
6763	241562	225208	TE-2C
6763	241562	225210	TE-2A
6763	523242	212615	E-2C
6763	523242	222650	E-1B
6764	113152	222810	EC-130G
6764	113152	222815	EC-130G
6764	241552	211620	EA-3B
6764	241552	225680	TA-3B
6764	241552	232420	P-3A
6764	241552	272870	EP-3B
6764	241552	272879	EP-3E
6765	244532	213805	C-9B
6765	244532	223020	C-130F
6765	244532	223620	CT-39E
6765	244532	223623	CT-39G
6765	244532	243032	VC-118B
6765	523792	213805	C-9B
6765	523792	253036	C-118B
6765	241542	211820	EA-6B

ACT CODE	PE CODE	PU CODE	A?PCFAFI NAME
6765	24 1562	211820	EA-6B
6766	24 4532	221632	EA-4F
6766	24 4532	231423	EPA-3B
6766	24 4532	231832	EA-6A
6766	24 4532	242835	NC-121K
6766	52 3262	231023	KA-3B
6766	52 3262	231832	EA-6A
6768	24 1512	213430	C-2A
6768	24 1512	223470	C-1A
6768	24 1512	227485	RH-530
6785	24 4532	214830	LS-2B
6785	24 4532	260284	F-4J
6785	24 4532	260295	F-4S
6789	35 1122	232420	P-3A
6789	35 1122	293092	RP-3A
6797	847412	217631	HH-46A
6797	847412	218005	TH-57A
6797	847412	218055	TH-57
6797	847412	227820	TH-1L
6797	847412	237823	LH-1L
6797	847412	237832	UH-1E
6797	847432	214410	LH-11A
6797	847432	214830	US-2B
6797	847432	217631	HH-46A
6797	847432	267843	LH-1N
6799	847412	216050	T-28B

ACT CODE	PE CODE	PU CODE	AIRCRAFT NAME
6799	847412	216239	T-34C
6799	847412	225430	T-2C
6799	847412	225840	TS-2A
6799	847412	235216	TA-4J
6799	847412	265250	T-44A
6799	847422	215620	T-39D
6799	847422	225430	T-2C
6799	847422	235216	TA-4J
6799	847432	215620	T-39D
6799	847432	223222	VC-131
6799	847432	223224	C-131F
6799	847432	223470	C-1A
6799	847432	253619	CTX

APPENDIX B

PROGRAM LISTINGS AND FLOWCHARTS

ANNEX B-1
PROGRAM EXTRACT

```

100 $RESET FREE
200 IO DIVISION.
300 PROGRAM-ID. REEXT.
400
500 ENVIRONMENT DIVISION.
600 INPUT-OUTPUT SECTION.
700 FILE-CONTROL.
800     SELECT IN-FILE ASSIGN TO PETAPE.
900     SELECT OUT-FILE ASSIGN TO PETAPE.
1000    SELECT LISTING ASSIGN TO PRINTER.
1100
1200 DATA DIVISION.
1300 FILE SECTION.
1400 FD IN-FILE
1500    LABEL RECORDS STANDARD VALUE OF IO IN-NAME
1600    RECORDING MODE IS STANDARD
1700    BLOCK CONTAINS 41 RECORDS
1800    DATA RECORDS ARE IN-REC, IN-REC-2.
1900 01 IN-REC.
2000     02 BLIC PICTURE X(5).
2100     02 FILLER PICTURE X(2).
2200     02 BSC PICTURE X(5).
2300     02 PROJECTION-DATE PICTURE X(2).
2400     02 PROJ-MONTH PICTURE 9(2).
2500     02 FILLER PICTURE X(3).
2600     02 UIC PICTURE 9(5).
2700     02 UIC2 PICTURE S9(5).
2800     02 MAPP PICTURE X(4).
2900     02 ACT-CODE PICTURE X(4).
3000     02 FILLER PICTURE X(6).
3100     02 ACT-LONGNAME PICTURE X(26).
3200     02 FILLER PICTURE X(4).
3300     02 ACT-SHORTNAME PICTURE X(16).
3400     02 ENL-DIST-COMM-CODE PICTURE X(3).
3500     02 ACT-MISSION-CODE PICTURE X(2).
3600     02 PAPP PICTURE X(5).
3700     02 FID PICTURE X(2).
3800     02 BPG PICTURE X(1).
3900     02 COG PICTURE X(1).
4000     02 MANNING-CONTROL-AUTH PICTURE X(1).
4100     02 RENSTN-MANNING-CODE PICTURE X(1).
4200     02 FILLER PICTURE X(5).
4300     02 ADDC PICTURE X(2).
4400     02 PE-SPONSOR PICTURE X(2).
4500     02 FILLER PICTURE X(4).
4600     02 TYCOM PICTURE X(2).
4700     02 TYPE-ASSIGNMENT PICTURE X(1).
4800     02 MILITARY-CLAIMENT PICTURE X(4).
4900     02 GEO-RESPONSIBILITY PICTURE X(1).
5000     02 GEO-LOCATION PICTURE X(8).
5100     02 HOMEPOR-ABBF PICTURE X(6).
5200     02 HOMEPOR-GROUPING PICTURE X(1).
5300     02 NAVAL-DISTRICT PICTURE X(2).
5400     02 AREA-TYPE-CITY PICTURE X(3).
5500     02 PROGRAM-ELEMENT PICTURE X(6).
5600     02 DPPC PICTURE X(2).
5700     02 OFFICER-DIARY-STATUS PICTURE X(1).
5800     02 ENLISTD-DIARY-STATUS PICTURE X(1).
5900     02 PRIORITY-MANNING PICTURE X(14).
6000     02 FILLER PICTURE X(7).
6100     02 FILLER PICTURE X(3).

```


6200	02	OFFICER-ALLOW-TRIG	PICTURE X(1).
6300	02	ENLISTO-ALLOW-TRIG	PICTURE X(1).
6400	02	TRANSACTION-NUMBER	PICTURE X(5).
6500	02	TRANSACTION-DATE	PICTURE X(6).
6600	02	MDI-INDICATOR	PICTURE X(1).
6700	02	FILE-CODE	PICTURE X(1).
6800	02	RECORD-NUMBER	PICTURE X(1).
6900	02	FILLER	PICTURE X(4).
7000	02	ALLOW-TRIG	PICTURE X(1).
7100	02	REQMNTS-TRIG	PICTURE X(1).
7200	02	MOB-TIG	PICTURE X(1).
7300	02	ALGMENT-INDICATOR	PICTURE X(1).
7400	02	FAC	PICTURE X(1).
7500	02	DESIG-GRADE	PICTURE X(5).
7600	02	RANK-ABBREY	PICTURE X(5).
7700	02	AGDU	PICTURE X(4).
7800	02	PNOBC	PICTURE X(4).
7900	02	SNOBC	PICTURE X(4).
8000	02	TPIC	PICTURE X(5).
8100	02	QUALITY-CODE	PICTURE X(1).
8200	02	CLR-PROJ-ALLOW	PICTURE S9(5).
8300	02	FYC	PICTURE S9(5).
8400	02	FY1	PICTURE S9(5).
8500	02	FY2	PICTURE S9(5).
8600	02	FY3	PICTURE S9(5).
8700	02	FY4	PICTURE S9(5).
8800	02	FY5	PICTURE S9(5).
8900	02	MD1	PICTURE S9(5).
9000	02	MD1	PICTURE S9(5).
9100	02	MD2	PICTURE S9(5).
9200	02	MD3	PICTURE S9(5).
9300	02	MD6	PICTURE S9(5).
9400	02	MD12	PICTURE S9(5).
9500	02	BILLET-TITLE	PICTURE X(40).
9600	02	SEC-SUBSPEC	PICTURE X(5).
9700	02	PRI-SUBSPEC	PICTURE X(5).
9800	02	FILLER	PICTURE X(2).
9900			
10000	01	IN-REC-2.	
10100	02	IN-REC-DISP-1	PICTURE X(100).
10200	02	IN-REC-DISP-2	PICTURE X(100).
10300	02	IN-REC-DISP-3	PICTURE X(100).
10400	02	IN-REC-DISP-4	PICTURE X(50).
10500			
10600	FD	OUT-FILE	
10700		LABEL RECORDS STANDARD VALUE OF ID OUT-NAME	
10800		BLOCK CONTAINS 75 RECORDS	
10900		RECORDING MODE IS STANDARD	
11000		DATA RECORDS ARE OUT-REC, OUT-REC-P.	
11100	01	OUT-REC.	
11200	02	BUIC	PICTURE X(5).
11300	02	LIC	PICTURE X(5).
11400	02	MAPP	PICTURE X(4).
11500	02	ACT-CODE	PICTURE X(4).
11600	02	ACT-SHORTNAME	PICTURE X(16).
11700	02	ACT-MISSION-CODE	PICTURE X(2).
11800	02	TYPE-ASSIGNMENT	PICTURE X(1).
11900	02	PROGRAM-ELEMENT	PICTURE X(6).
12000	02	DPPC	PICTURE X(2).
12100	02	PRIORITY-MANNING	PICTURE X(14).
12200	02	FAC	PICTURE X(1).
12300	02	DESIG-GRADE	PICTURE X(5).
12400	02	RANK-ABBREY	PICTURE X(5).
12500	02	PNOBC	PICTURE X(4).

```

12600      02  SNOBC          PICTURE X(4).
12700      02  QUALITY-CODE   PICTURE X(1).
12800      02  CUR-PROJ-ALLOW PICTURE S9(5).
12900      02  FYC           PICTURE S9(5).
13000      02  FY1           PICTURE S9(5).
13100      02  FY2           PICTURE S9(5).
13200      02  FY3           PICTURE S9(5).
13300      02  FY4           PICTURE S9(5).
13400      02  FYS           PICTURE S9(5).
13500      02  MD1           PICTURE S9(5).
13600      02  MD1           PICTURE S9(5).
13700      02  MD2           PICTURE S9(5).
13800      02  MD3           PICTURE S9(5).
13900      02  MD6           PICTURE S9(5).
14000      02  MD12          PICTURE S9(5).
14100      01  OUT-REC-P.
14200      02  OUT-DISPLY1    PICTURE X(100).
14300      02  OUT-DISPLY2    PICTURE X(44).
14400
14500      FD  LISTING
14600      DATA RECORDS ARE PAPER1, PAPER2.
14700      01  PAPER1.
14800          02  TITLE          PICTURE X(20).
14900          02  CTRX          PICTURE ----,---,---9.
15000          02  WASTE1        PICTURE X(69).
15100      01  PAPER2.
15200          02  WASTE2        PICTURE X(1).
15300          02  DISPLY-REC     PICTURE X(100).
15400
15500      WORKING-STORAGE SECTION.
15600
15700      77  DISP-CTR PICTURE S9(8) COMPUTATIONAL-1 VALUE ZERO.
15800      77  IN-RECS PICTURE S9(8) COMPUTATIONAL-1 VALUE ZERO.
15900      77  OUT-RECS PICTURE S9(8) COMPUTATIONAL-1 VALUE ZERO.
16000      77  NBR-PRINT PICTURE S9(8) COMPUTATIONAL-1 VALUE ZERO.
16100      77  IN-NAME      PICTURE X(18) VALUE "FENQJUL77ALL/0001.".
16200      77  OUT-NAME     PICTURE X(18) VALUE "FENQJUL77/EXTRACT.".
16300
16400      PROCEDURE DIVISION.
16500
16600      STARTUP.
16700          MOVE 1000 TO NBR-PRINT.
16800          OPEN OUTPUT LISTING.
16900          OPEN OUTPUT OUT-FILE.
17000          OPEN INPUT IN-FILE.
17100          READ IN-FILE AT END GO TO QUIT.
17200          MOVE SPACES TO PAPER1
17300          MOVE " THE HEADER RECORD " TO TITLE.
17400          WRITE PAPER1.
17500          MOVE SPACES TO PAPER2.
17600          MOVE IN-REC-DISP-1 TO DISPLY-REC.
17700          WRITE PAPER2.
17800          MOVE IN-REC-DISP-2 TO DISPLY-REC.
17900          WRITE PAPER2.
18000          MOVE IN-REC-DISP-3 TO DISPLY-REC.
18100          WRITE PAPER2.
18200          MOVE SPACES TO PAPER2.
18300          MOVE IN-REC-DISP-4 TO DISPLY-REC.
18400          WRITE PAPER2 BEFORE ADVANCING 3 LINES.
18500
18600
18700      CYCLER.
18800          ADD 1 TO IN-RECS.
18900          READ IN-FILE AT END GO TO QUIT.

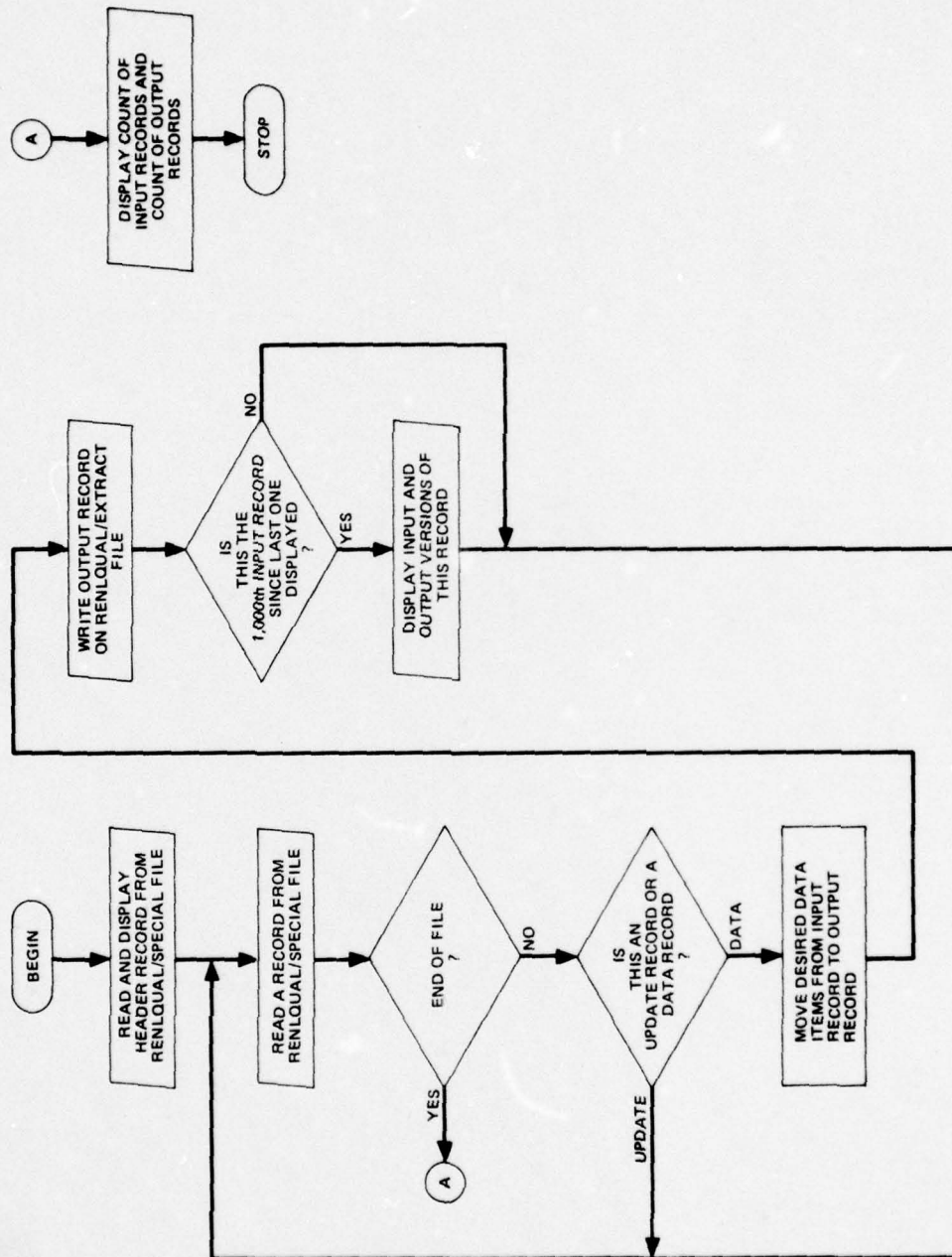
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19000      ADD 1 TO DISP-CTR.
19100
19200      IF PROJECTION-DATE IS NOT EQUAL TO SPACES GO TO CYCLER.
19300
19400      MOVE CORRESPONDING IN-REC TO OUT-REC.
19500      WRITE OUT-REC.
19600      ADD 1 TO OUT-RECS.
19700
19800      IF DISP-CTR NOT LESS THAN NBR-PRINT
19900          MOVE ZERO TO DISP-CTR
20000          MOVE SPACES TO PAPER1
20100          MOVE IN-RECS TO CTRX
20200          MOVE " NO." TO TITLE
20300          WRITE PAPER1
20400          MOVE SPACES TO PAPER2
20500          MOVE IN-REC-DISP-1 TO DISPLY-REC
20600          WRITE PAPER2
20700          MOVE IN-REC-DISP-2 TO DISPLY-REC
20800          WRITE PAPER2
20900          MOVE IN-REC-DISP-3 TO DISPLY-REC
21000          WRITE PAPER2
21100          MOVE SPACES TO PAPER2
21200          MOVE IN-REC-DISP-4 TO DISPLY-REC
21300          WRITE PAPER2
21400          MOVE OUT-DISPLY1 TO DISPLY-REC
21500          WRITE PAPER2
21600          MOVE SPACES TO DISPLY-REC
21700          MOVE OUT-DISPLY2 TO DISPLY-REC
21800          WRITE PAPER2 BEFORE ADVANCING 2 LINES.
21900
22000      GO TO CYCLER.
22100
22200
22300      QUIT.
22400          CLOSE IN-FILE.
22500          CLOSE OUT-FILE WITH LOCK.
22600          MOVE SPACES TO PAPER1.
22700          MOVE " JOB COMPLETED" TO TITLE.
22800          WRITE PAPER1 BEFORE ADVANCING 2 LINES.
22900          MOVE SPACES TO PAPER1
23000          MOVE IN-RECS TO CTRX.
23100          MOVE " INPUT RECORDS" TO TITLE.
23200          WRITE PAPER1 BEFORE ADVANCING 2 LINES.
23300          MOVE SPACES TO PAPER1.
23400          MOVE OUT-RECS TO CTRX.
23500          MOVE " OUTPUT RECORDS" TO TITLE.
23600          WRITE PAPER1.
23700          STOP RUN.

```


Routine EXTRACT



ANNEX B-2

FORMAT OF RENLQUAL/EXTRACT RECORDS

<u>Location</u>	<u>Variable</u>
1-5	Bureau unit identification code
6-10	Unit identification code
11-14	Manpower authorization requirements plan code
15-18	Activity type code
19-34	Activity short name
35-36	Activity mission code
37	Sea/shore code
38-43	Program element
44-45	Defense planning and programming code
46-52	Priority manning - one
53-59	Priority manning - two
60	Functional area code
61-65	Rating name abbreviation
66-69	Rating numeric code
70	Paygrade (A, J, 1, 2, 3, 4, 5, 6, 7)
71-74	Primary Navy enlisted code
75-78	Second Navy enlisted code
79	Paygrade (9, 8, 7, 6, 5, 4, 3, 2, 1)
80-84	Current projected allowance
85-89	Current fiscal year (FYC) requirements
90-94	Current plus one fiscal year (FY1) requirement
94-99	FY2 requirement
100-104	FY3 requirement
105-109	FY4 requirement
110-114	FY5 requirement
115-119	Initial mobilization requirement
120-124	Initial plus one month (MB1) mobilization requirement
125-129	Initial plus two month (MB2) mobilization requirement
130-134	MB3 requirement
135-139	MB6 requirement
140-144	MB12 requirement

ANNEX B-3

PROGRAM FORCES,
SHIP VERSION

```

100  BRSET FREE
200  $SET AUTOREAD
300  $HND = FROM CHA/LIB/
400  FILE 1(TITLE="OCT77NARM/SHIP", FILETYPE=A, KIND=DISK)
500  FILE 2(TITLE="OCT77NARM/SHIP/ACT", KIND=DISK,
600  *MAXRFSIZE=17, BLOCKSIZE=570, UNITS=WORDS)
700  FILE 3(TITLE="ENREP/DICT/SHIP", FILETYPE=A, KIND=DISK)
800  C
900  C      READS THE NARM SHIP FORCES BY PU AND PE
1000 C      ASSIGNS EACH PU/PE AN ACT CODE
1100 C      SORTS BY ACT/PE/PU
1200 C      WRITES A FILE FOR ENREP
1300 C      INPUTS = 1 - NARM FILE SORTED BY PU THEN PE CODES IN
1400 C                  ASCENDING ORDER
1500 C                  3 - ACT/PE/PU DICTIONARY
1600 C      OUTPUTS = 2 - ENREP FILE
1700 C
1800 C      THE NARM SHIP FILE CONTAINS FORCES FOR 9 YEARS,
1900 C      ALTHOUGH THE DATA FOR YEARS 5-9 ARE THE SAME
2000
2100  DIMENSION FORCE(200,4,16), IDENT(200,4,4), TYP(16), NPE(200),
2200  * ACTCODE(200), NMCODE(200), PUCODE(200), JIDENT(75,30,4),
2300  * FORCE2(75,30,16), NR(100)
2400  INTEGER PU, PE, ACT, ACTCODE, PUCODE
2500  C
2600  C      READ THE ACT/PE/PU DICTIONARY
2700  READ (3,4000) NS
2800  4000 FORMAT (I5)
2900  WRITE (6,4050)
3000  4050 FORMAT (1H1/4X, "THE ACT/PE/PU DICTIONARY IS: ")
3100  * 1X, 3HND, 3X, 3HACT, 6X, 2HPE, 4X, 4HNAME, 6X, 2HPU/)
3200  DO 5 I=1,NS
3300  READ(3,4010) ACTCODE(I), KK, NMCODE(I), PUCODE(I)
3400  5 WRITE (6,4011) I, ACTCODE(I), KK, NMCODE(I), PUCODE(I)
3500  4011 FORMAT (1X, I3, 2X, I4, 2X, I6, 2X, A6, 2X, I6)
3600  4010 FORMAT (I4, 2X, I6, 2X, A6, 2X, I6)
3700  C
3800  C      INITIALIZE VARIABLES - IYR - BASE YEAR (1978)
3900  C      - N1 - 200 PU CODES MAX
4000 C      - N2 - 4 PE CODES PER PU MAX
4100 C      - M1 - 75 ACT CODES MAX
4200 C      - M2 - 30 RECORDS PER ACT MAX
4300  IYR=1978
4400  N1=200
4500  N2=4
4600  M1=75
4700  M2=30
4800  DO 10 I=1,N1
4900  DO 10 J=1,N2
5000  DO 10 K=1,M1
5100  10 FORCE(I,J,K)=0.
5200  LPU=0
5300  YAC=0
5400  NPU=0
5500  C
5600  C      SKIP NARM HEADER RECORD
5700  READ (1,4030) TYP
5800  4030 FORMAT (16A6)
5900  WRITE (6,4040) TYP
6000  4040 FORMAT (1H1,10A6/1X,8A6)
6100

```

```

5200 C READ FORCES BY PU/PE
5300 C REPLICATE 9TH YEAR OVER YEARS 10-16
5400 C REMOVE THE CLAIMANT FROM THE PU CODE (DIGITS 7-8)
5500 C DELETE PU TYPES 97, INDICATE OVERHAULS NOT SHIPS
5600 20 READ(1,4020,END=50) PU,PE,(TMP(I),I=1,2)
5700 4020 FORMAT (1X,2X,16,19X,39X,9F15.0)
5800 DO 25 I=10,16
5900 25 TMP(I)=TMP(9)
7000 PU=PU/100
7100 KK=(PU-(PU/10000)*10000)/100
7200 IF(KK.GE.97) GO TO 20
7300
7400 C TEST FOR A NEW PU
7500 IF(PU.EQ.LPU) GO TO 30
7600
7700 C NEW PU
7800 NPU=NPU+1
7900 IF (NPU.GT.N1) WRITE (6,9010) PU,PE
8000 9010 FORMAT (21H0 ERROR TOO MANY PUS,2I8)
8100 IF(NPU.GT.N1) NPU=N1
8200 LPU=PU
8300 NPE(NPU)=1
8400 JPE=1
8500 IDENT(NPU,1,1)=PU
8600 IDENT(NPU,1,2)=PE
8700 KPE=1
8800 GO TO 40
8900
9000 C TEST FOR A NEW PE
9100 30 DO 35 I=1,JPE
9200 KPE=I
9300 IF(PE.EQ.IDENT(NPU,I,2)) GO TO 40
9400 35 CONTINUE
9500
9600 C NEW PE
9700 NPE(NPU)=NPE(NPU)+1
9800 JPE=JPE+1
9900 IF(JPE.LE.N2) GO TO 38
10000 WRITE(6,9020) PU,PE
10100 9020 FORMAT(21H0 ERROR TOO MANY PES,2I8)
10200 JPE=N2
10300 NPE(NPU)=N2
10400 38 IDENT(NPU,JPE,1)=PU
10500 IDENT(NPU,JPE,2)=PE
10600 KPE=JPE
10700
10800 C ADD TO THE FORCES
10900 40 DO 45 J=1,16
11000 45 FORCE(NPU,KPE,J)=FORCE(NPU,KPE,J)+TMP(J)
11100 GO TO 20
11200
11300 C END OF FILE - RELEASE INPUT FILE
11400 50 CLOSE (1,DISP=KEEP)
11500
11600 C ASSIGN ACT-CODE
11700 DO 65 I=1,NPU
11800 J=NPE(I)
11900 IF (J.LT.1) GO TO 66
12000 DO 65 K=1,J
12100 L=NSCANX(PUCODE,NS,IDENT(I,K,1))
12200 IF(L.EQ.0) GO TO 62
12300 IDENT(I,K,3)=ACTCODE(L)
12400 IDENT(I,K,4)=NNCODE(L)
12500 C FLAG ALL ZERO RECORDS WITH A ZERO ACT CODE

```



```

12500      DO 61 L=1,16
12600      IF (FORCE(I,K,L).GT.0.0) GO TO 65
12800      61 CONTINUE
12900      IDENT(I,K,3)=0
13000      GO TO 65
13100      C      FLAG RECORDS WITH NO DICTIONARY ENTRY WITH A ZERO ACT CODE
13200      62 WRITE(6,1000) IDENT(I,K,1),IDENT(I,K,2),(FORCE(I,K,L),L=1,16)
13300      1000 FORMAT(17HERROR - WHAT IS ,2I4,16F5.0)
13400      IDENT(I,K,3)=0
13500      IDENT(I,K,4)=NMCODE(NS+1)
13600      65 CONTINUE
13700      66 CONTINUE
13800
13900      C      SORT THE FORCES BY ACT-CODE
14000      N=NPU+1
14100      DO 85 I=1,NPU
14200      LIM=N-I
14300      IF (LIM.LT.?) GO TO 85
14400      DO 80 J=2,LIM
14500      IF (IDENT(J-1,1,3).LE.IDENT(J,1,3)) GO TO 80
14600      IHOLD=NPE(J-1)
14700      NPE(J-1)=NPE(J)
14800      NPE(J)=IHOLD
14900      DO 75 K=1,N2
15000      DO 70 L=1,16
15100      XHOLD=FORCE(J-1,K,L)
15200      FORCE(J-1,K,L)=FORCE(J,K,L)
15300      70 FORCE(J,K,L)=XHOLD
15400      DO 75 L=1,4
15500      IHOLD=(IDENT(J-1,K,L)
15600      IDENT(J-1,K,L)=IDENT(J,K,L)
15700      IDENT(J,K,L)=IHOLD
15800      75 CONTINUE
15900      80 CONTINUE
16000      85 CONTINUE
16100
16200      C
16300      C      COUNT THE NUMBER OF ACT CODES AND THE NUMBER OF RECORDS IN EACH
16400      IACT=-100
16500      NAC=0
16600      DO 230 I=1,NPU
16700      DO 240 J=1,NPE(I)
16800      IF (IACT.EQ.IDENT(I,J,3)) GO TO 210
16900      IACT=IDENT(I,J,3)
17000      NAC=NAC+1
17100      IF (NAC.GT.M1) WRITE (6,200) M1
17200      IF (NAC.GT.M1) NAC=M1
17300      200 FORMAT (" INCREASE ARRAY SIZE - MORE THAN ",I3," ACT CODES")
17400      NR(NAC)=0
17500      210 NR(NAC)=NR(NAC)+1
17600      IF (NR(NAC).GT.M2) WRITE (6,220) M2
17700      220 FORMAT (" INCREASE ARRAY SIZE - MORE THAN ",I3," RECORDS IN AN ACT
17800      * CODE")
17900      IF (NR(NAC).GT.M2) NR(NAC)=M2
18000      K=NR(NAC)
18100      DO 230 L=1,4
18200      230 IDENT(NAC,K,L)=IDENT(I,J,L)
18300      DO 235 L=1,16
18400      235 FORCE2(NAC,K,L)=FORCE(I,J,L)
18500      240 CONTINUE
18600      250 CONTINUE
18700
18800      C      SORT FORCES BY PE WITHIN EACH ACT
18900      DO 120 I=1,NAC
19000      N=NR(I)

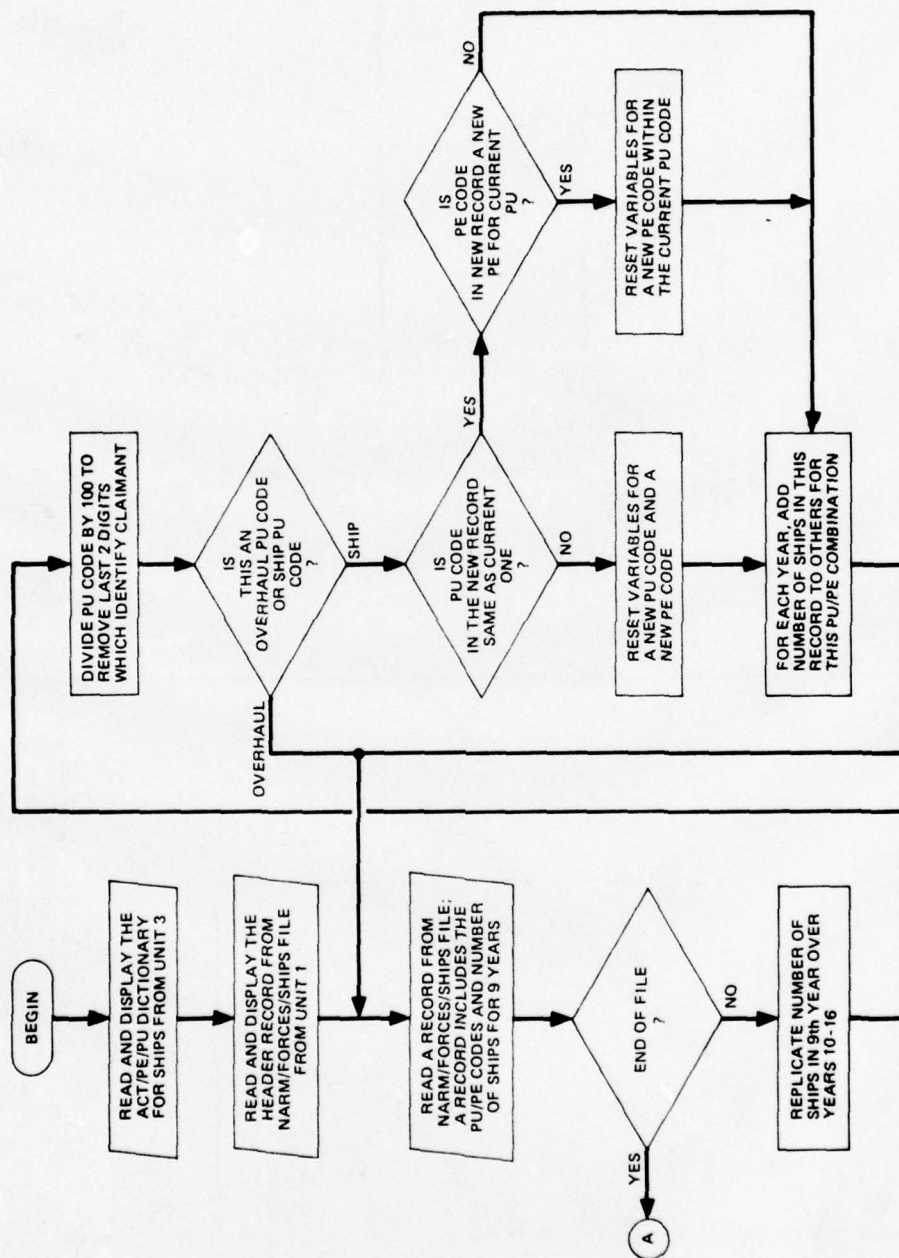
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```

17000      M=M+1
18100      DO 110 J=1,N
19200      L[4]=J
19300      IF (LIM-UT.2) GO TO 110
19400      DO 100 K=2,LIM
19500      IF (JDENT(I,K-1,2).LE.JDENT(I,K,2)) GO TO 100
19600      DO 90 L=1,16
19700      XHOLD=FORCE2(I,K-1,L)
19800      FORCE2(I,K-1,L)=FORCE2(I,K,L)
19900      90 FORCE2(I,K,L)=XHOLD
20000      DO 95 L=1,4
20100      IHOLD=JDENT(I,K-1,L)
20200      JDENT(I,K-1,L)=JDENT(I,K,L)
20300      95 JDENT(I,K,L)=IHOLD
20400      100 CONTINUE
20500      110 CONTINUE
20600      120 CONTINUE
20700
20800      C      WRITE NEW FILE
20900      NL=100
21000      DO 170 I=1,NAC
21100      J=NR(I)
21200      DO 170 K=1,J
21300      IF (JDENT(I,K,3).EQ.0) GO TO 170
21400      WRITE(2,2040) JDENT(I,K,3),JDENT(I,K,2),JDENT(I,K,1),
21500      *      (FORCE2(I,K,L),L=1,16)
21600      2040 FORMAT (I4,16,16,16F6.0)
21700      NL=NL+1
21800      IF(NL.LE.25) GO TO 165
21900      WRITE(6,2000) (L,L=1979,1993)
22000      2000 FORMAT(1H1/1X,2(3X,3HACT),4X,2HPE,6X,2HPH/
22100      *      3X,4HNAME,2X,4HCDOE,2(3X,4HCDOE,1X),1X,16I6/)
22200      NL=0
22300      165 WRITE(6,2020) JDENT(I,K,4),JDENT(I,K,3),JDENT(I,K,2),JDENT(I,K,1)
22400      *      (FORCE2(I,K,L),L=1,16)
22500      2020 FORMAT(1H0,2X,A4,2X,I4,2X,I6,2X,I6,1X,16F6.0)
22600      170 CONTINUE
22700      CLOSE (2,DISP=CRUNCH)
22800
22900      STOP
23000      END
23100
23200      C*****
23300
23400      INTEGER FUNCTION NSCANX(M,L,I)
23500      C
23600      C      SEARCH ELEMENTS 1-L OF ARRAY M FOR AN OCCURANCE OF I
23700      C
23800      DIMENSION M(1)
23900      J=L
24000      5 IF(N(J).IS.I) GO TO 10
24100      J=J-1
24200      IF (J.GT.0) GO TO 5
24300      J=0
24400      10 NSCANX=J
24500      RETURN
24600      END

```

Routine FORCES, ship version




```
graph TD
    A((A)) --> B[LOOP ON PU/PE COMBINATIONS]
    B --> C{IS THIS COMBINATION IN THE ACT/PE/PU DICTIONARY?}
    C -- NO --> D[DISPLAY ERROR MESSAGE]
    C -- YES --> E{IS NUMBER OF FORCES ZERO IN EVERY YEAR?}
    E -- YES --> F[FLAG THIS PU/PE COMBINATION WITH A ZERO ACT CODE]
    E -- NO --> G[ADD THE ACT CODE AND SHIP NAME TO THIS PU/PE COMBINATION]
    F --> G
    G --> H[END OF LOOP: DO NEXT PU/PE COMBINATION]
    H --> I[COUNT NUMBER OF ACT CODES AND THEN NUMBER OF PE/PU COMBINATIONS WITHIN EACH ACT CODE]
    I --> J[SORT ACT/PE/PU COMBINATIONS BY ACT CODE]
    J --> K[END OF LOOP: DO NEXT ACT/PE/PU COMBINATION]
    K --> L[STOP]
```

The flowchart illustrates the process of generating the ACT/PE/PU CODES AND SHIP NAMES FILE. It begins with a start point 'A' leading to a loop 'LOOP ON PU/PE COMBINATIONS'. A decision diamond asks 'IS THIS COMBINATION IN THE ACT/PE/PU DICTIONARY?'. If 'NO', it leads to 'DISPLAY ERROR MESSAGE'. If 'YES', it leads to another decision diamond 'IS NUMBER OF FORCES ZERO IN EVERY YEAR?'. If 'YES', it leads to 'FLAG THIS PU/PE COMBINATION WITH A ZERO ACT CODE'. If 'NO', it leads to 'ADD THE ACT CODE AND SHIP NAME TO THIS PU/PE COMBINATION'. Both paths lead to 'END OF LOOP: DO NEXT PU/PE COMBINATION', which then leads to 'COUNT NUMBER OF ACT CODES AND THEN NUMBER OF PE/PU COMBINATIONS WITHIN EACH ACT CODE'. This is followed by 'SORT ACT/PE/PU COMBINATIONS BY ACT CODE', then 'END OF LOOP: DO NEXT ACT/PE/PU COMBINATION', and finally 'STOP'.

ANNEX B-4

PROGRAM FORCES,
AIRCRAFT VERSION

```

100  $RESET FREE
200  $SET AUTOMIND
300  $YIND = FROM CNA/LEH/
400  FILE 1(CITITLE="OCT77NARM/AIR",FILETYPE=8,KIND=DISK)
500  FILE 2(CITITLE="OCT77NARM/AIR/ACT",KIND=DISK,
600  *UNITS=WORDS,MAXRECSIZE=1,BLOCKSIZE=570)
700  FILE 3(CITITLE="ENREP/DICT/AIR",FILETYPE=6,KIND=DISK)
800  FILE 4(KIND=PRINTER)
900  C
1000 C      READS THE NARM A/C FORCES BY PU AND PE
1100 C      DELETES MARINE AIR
1200 C      DELETES NON-SQUADRON AIR
1300 C      ASSIGNS EACH PU/PE AN ACT CODE
1400 C      SORTS BY ACT/PE/PU
1500 C      WRITES AN ENREP FILE
1600 C      INPUTS = 1 - NARM FILE SORTED BY PU THEN PE CODES IN
1700 C                      ASCENDING ORDER
1800 C                      3 - ACT/PE/PU DICTIONARY
1900 C      OUTPUTS = 2 - ENREP FILE
2000 C
2100 C      THE NARM AIRCRAFT FILE CONTAINS FORCES FOR 7 YEARS,
2200 C      ALTHOUGH THE DATA FOR YEARS 6-7 ARE THE SAME
2300 C
2400 C      DIMENSION FORCE(30,35,16), IDENT(30,35,4), IMP(16), NPE(200),
2500 C      *      AFORCE(220,16), INDEX(220,4), NR(220), NPU(270,20),
2600 C      *      GORCE(200,15,16), JUFNT(200,15,4),
2700 C      *      ACTCOD(220), NMCODE(220), PUCODE(220), PECODE(220),
2800 C      *      SQDPE(46)
2900 C      EQUIVALENCE (GORCE(1),FORCE(1)), (IDENT(1),IDENT(1))
3000 C      INTEGER PU, PE, ACT, ACTCOD, PUCODE, PECODE, SQDPE
3100 C      DATA SQDPE / 113152, 241342, 241352, 241362, 241392, 241392,
3200 C      *      241422, 241442, 241452, 241512, 241522, 241532,
3300 C      *      241542, 241552, 241562, 242322, 242332, 242342,
3400 C      *      242422, 242432, 242442, 242512, 242622, 243032,
3500 C      *      244532, 351122, 351312, 523112, 523122, 523132,
3600 C      *      523142, 523162, 523172, 523242, 523252, 523262,
3700 C      *      523322, 523332, 523412, 523712, 523792, 241462,
3800 C      *      827442, 847412, 847422, 847432/
3900 C
4000 C      READ THE ACT/PE/PU DICTIONARIES
4100 C      READ(3,4050) NC
4200 C      4050 FORMAT(215)
4300 C      WRITE (6,4010)
4400 C      4010 FORMAT (141/4X,"THE ACT/PE/PU DICTIONARY IS:/"
4500 C      *      1X,3HNO.,3X,5HACT,6X,2HPE,4X,4HNAME,6X,2HPU/)
4600 C      DO 300 I=1,NC
4700 C      READ(3,4000) ACTCOD(I), PUCODE(I), NMCODE(I), PUCODE(I)
4800 C      300 WRITE (6,4020) I, ACTCOD(I), PUCODE(I), NMCODE(I), PUCODE(I)
4900 C      4020 FORMAT (14,I6,14,2X,I6,I6)
5000 C      4000 FORMAT(14,2X,I6,2X,I6,2X,I6)
5100 C
5200 C
5300 C      INITIALIZE VARIABLES - IYR - SETTING THE BASE YEAR TO 1974
5400 C      - N1 - 200 PU CODES MAX
5500 C      - N2 - 15 PE CODES PER PU MAX
5600 C      - M1 - 30 ACT CODES MAX
5700 C      - M2 - 35 RECORDS PER ACT CODE
5800 C
5900 C      IYR=1974
6000 C      ND=NC
6100 C      PUCODE(220)=0
6200 C      PECODE(220)=0

```



```

0200      A4000E(22)=0H
0300      ACTCDD(22)=0
0400      N1=200
0500      N2=15
0600      M1=30
0700      I2=35
0800      DO 10 I=1,N1
0900      DO 11 J=1,N2
1000      DO 12 K=1,16
1100      10 GORCE(I,J,K)=0.
1200      JTY=0
1300      NAC=0
1400      NP=0
1500
1600      C      SKIP NAME HEADER RECORD
1700      READ (1,4060) TMP
1800      4050 FORMAT (16A16)
1900      WRITE (6,4070) TMP
2000      4070 FORMAT (1H1,10A6/1X,8A6)
2100      C
2200      C      READ FORCES BY PU/PE
2300      C      DELETE MARINE A/C - DIGIT 6 OF PE IS A 3
2400      C      DELETE NON-SQUADRON A/C - PE NOT IN ARRAY SDOPE
2500      C      REPLICATE YEAR 9 OVER YEARS 10-16
2600      C      REMOVE CLAIMANT FROM THE PU CODE (DIGITS 7-9)
2700      20 READ(1,4040,END=50) PU,PE,(TMP(I),I=1,3)
2800      4040 FORMAT (13,2X,16,19X,39X,9F13.0)
2900      I=PE-(PE/10)*10
3000      IF (I.EQ.3) GO TO 20
3100      I=NSCANX(SDOPE,40,PE)
3200      IF (I.EQ.0) GO TO 20
3300      DO 25 I=10,16
3400      25 TMP(I)=TMP(7)
3500      PU=PU/100
3600
3700      C      TEST FOR A NEW PU
3800      IF(PU.EQ.JTY) GO TO 30
3900
4000      C      NEW PU
4100      NP=NP+1
4200      IF (NP.GT.N1) WRITE (6,9010) PU,PE
4300      9010 FORMAT (21H0 ERROR TOO MANY PUS,2I8)
4400      IF(NP.GT.N1) NP=N1
4500      JTY=PU
4600      NPE(NP)=1
4700      JPE=1
4800      JDENT(NP,1,1)=PU
4900      JDENT(NP,1,2)=PE
5000      KPE=1
5100      GO TO 40
5200
5300      C      TEST FOR A NEW PE
5400      30 DO 35 I=1,JPE
5500      KPE=I
5600      IF(PE.EQ.JDENT(NP,I,2)) GO TO 40
5700      35 CONTINUE
5800
5900      C      NEW PE
6000      NPE(NP)=NPE(NP)+1
6100      JPE=JPE+1
6200      IF(JPE.LE.N2) GO TO 38
6300      WRITE(6,9020) PU,PE
6400      9020 FORMAT(21H0 ERROR TOO MANY PES,2I8)
6500      JPE=N2

```

```

12500      NPE(I)=N?
12700      34 JOENT(NP,JPE,1)=PJ
12800      JOENT(NP,JPE,2)=PE
12900      KPE=JPE
13000
13100      C      ADD TO THE FORCES
13200      40 DO 45 J=1,16
13300      45 GORCE(NP,KPE,J)=GORCE(NP,KPE,J)+TMP(J)
13400      GO TO 20
13500
13600      C      END OF FILE - RELEASE INPUT FILE
13700      50 CLOSE (1,DISP=KEEP)
13800
13900      C      ASSIGN ACT-CODE
14000      NC=0
14100      DO 60 I=1,NP
14200      J=NPE(I)
14300      DO 60 K=1,J
14400      C      LOOK IN DICTIONARY
14500      DO 58 L=1,40
14600      IF(PJCODE(L).NE.JOENT(I,K,1)) GO TO 58
14700      IF(PECODE(L).NE.JOENT(I,K,2)) GO TO 58
14800      GO TO 60
14900      58 CONTINUE
15000      C      NO MATCH - PRINT MESSAGE - IGNORE IT
15100      WRITE(6,1000) JOENT(I,K,1), JOENT(I,K,2), (GORCE(I,K,L),L=1,16)
15200      1000 FORMAT(17HERROR - WHAT IS ,I9,I10,16F5.0)
15300      GO TO 66
15400      C      IF NO AIRCRAFT ASSOCIATED WITH THIS PU/PE IGNORE IT
15500      60 DO 59 M=1,16
15600      IF (GORCE(I,K,M).GT.0) GO TO 61
15700      59 CONTINUE
15800      GO TO 66
15900      C      GOOD MATCH
16000      61 NC=NC+1
16100      IF (NC.GT.220) WRITE (6,1001)
16200      1001 FORMAT (' INCREASE SIZE OF ARRAY, INDEX, - MORE THAN 220 INPUT REC
16300      *ORDS')
16400      IF(NC.GT.220) NC=220
16500      INDEX(NC,1)=ACTCODE(L)
16600      INDEX(NC,2)=PECODE(L)
16700      INDEX(NC,3)=JOENT(I,K,1)
16800      INDEX(NC,4)=NMCODE(L)
16900      DO 62 M=1,16
17000      62 AFORCE(NC,M)=GORCE(I,K,M)
17100      66 CONTINUE
17200
17300      C      SORT THE FORCES BY ACT-CODE
17400      N=NC+1
17500      DO 85 I=1,NC
17600      LIM=N-I
17700      IF (LIM.LT.2) GO TO 85
17800      DO 84 J=2,LIM
17900      IF(INDEX(J-1,1).LE.INDEX(J,1)) GO TO 84
18000      DO 75 K=1,4
18100      IMOLD=INDEX(J-1,K)
18200      INDEX(J-1,K)=INDEX(J,K)
18300      75 INDEX(J,K)=IMOLD
18400      DO 80 X=1,16
18500      XHOLD=AFORCE(J-1,X)
18600      AFORCE(J-1,X)=AFORCE(J,X)
18700      80 AFORCE(J,X)=XHOLD
18800      84 CONTINUE
18900      85 CONTINUE

```

```

19100
19100 C          COUNT NUMBER OF ACTIVITIES
19200 C          AND WITHIN EACH THE NUMBER OF RECORDS
19300      NAC=0
19400      IACT=0
19500      DO 200 I=1,NAC
19600      IF(IACT.EQ.INDEX(I,1)) GO TO 200
19700      NAC=NAC+1
19800      IF (NAC.GT.M1) WRITE (6,197) M1
19900 197 FORMAT (" INCREASE SIZE OF ARRAYS, FORCE + IDENT, - MORE THAN ",I2
20000      *," ACT CODES")
20100      IF(NAC.GT.M1) NAC=M1
20200      IACT=INDEX(I,1)
20300      NR(NAC)=0
20400 200 NR(NAC)=NR(NAC)+1
20500
20600      IACT=1
20700      L1=1
20800      IF (NR(I).GT.M2) WRITE (6,209) M2
20900 209 FORMAT (" INCREASE SIZE OF ARRAYS, FORCE + IDENT, - MORE THAN ",I2
21000      *," RECORDS IN AN ACT CODE")
21100      IF(NR(I).GT.M2) NR(I)=M2
21200      L2=NR(I)
21300      L3=0
21400 210 IF (L1.GT.L2) GO TO 221
21500      DO 220 I=L1,L2
21600      DO 215 J=1,4
21700      K=I-L3
21800 215 IDENT(I, K, J)=INDEX(I, J)
21900      DO 220 J=1,16
22000      K=I-L3
22100 220 FORCE(I, K, J)=AFORCE(I, J)
22200 221 L1=L1+NR(IACT)
22300      L3=L3+NR(IACT)
22400      IACT=IACT+1
22500      IF (NR(IACT).GT.M2) WRITE (6,209) M2
22600      IF(NR(IACT).GT.M2) NR(IACT)=M2
22700      L2=L2+NR(IACT)
22800      IF(IACT.LE.NAC) GO TO 210
22900
23000 C          SORT FORCES BY PE WITHIN EACH ACT
23100      DO 120 I=1,NAC
23200      N=NR(I)
23300      M=N+1
23400      DO 110 J=1,N
23500      LIM=N-J
23600      IF (LIM.LT.2) GO TO 110
23700      DO 100 K=2,LIM
23800      IF(IDENT(I,K-1,2).LE.IDENT(I,K,2)) GO TO 100
23900      DO 90 L=1,16
24000      XHOLD=FORCE(I,K-1,L)
24100      FORCE(I,K-1,L)=FORCE(I,K,L)
24200 90 FORCE(I,K,L)=XHOLD
24300      DO 95 L=1,4
24400      XHOLD=IDENT(I,K-1,L)
24500      IDENT(I,K-1,L)=IDENT(I,K,L)
24600 95 IDENT(I,K,L)=XHOLD
24700 109 CONTINUE
24800 110 CONTINUE
24900 120 CONTINUE
25000
25100 C          WRITE NEW FILE
25200      NL=100
25300      DO 170 I=1,NAC

```

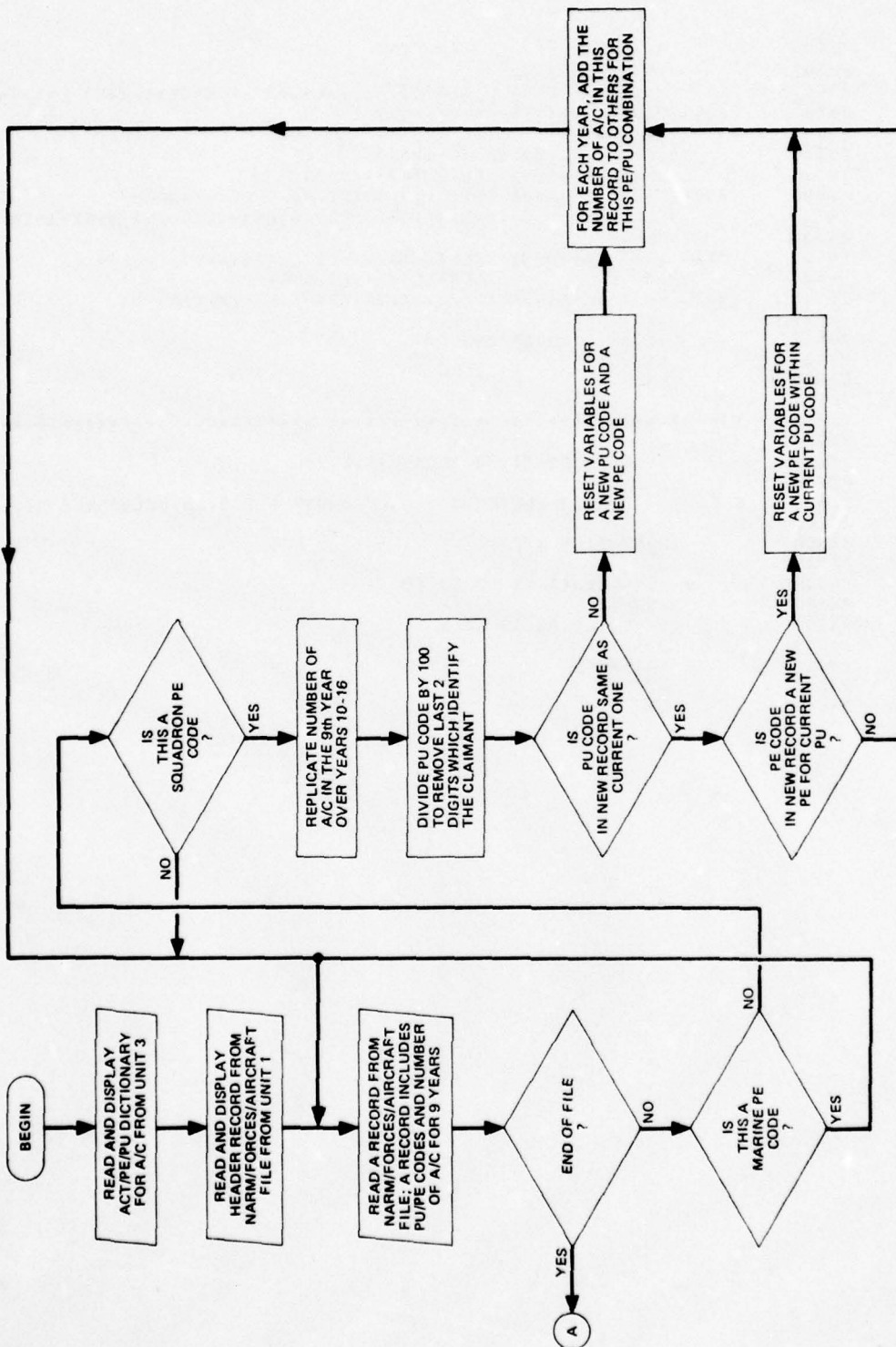


```

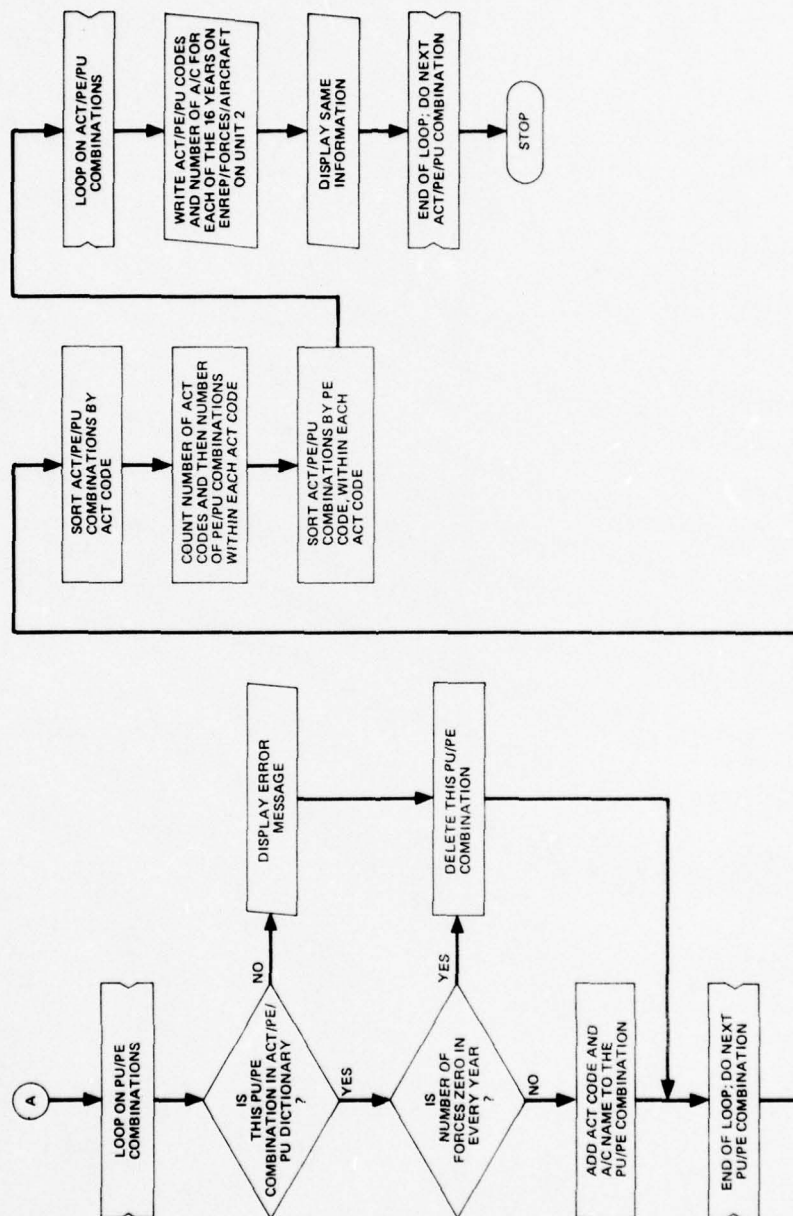
25400 J=Y(1)
25500 DO 170 K=1,J
25600 WRITE(2,2040) (IDENT(I,K,L),L=1,3),(FORCE(I,K,L),L=1,16)
25700 2040 FORMAT (14,16,16,16F6.0)
25800 NL=NL+1
25900 IF(NL.LE.25) GO TO 170
26000 WRITE (6,2000) (L,L=1978,1993)
26100 2000 FORMAT(14I4X,SHA/C,4X,SHACT,4X,2HPF,5X,2HPU/
26200 * 3X,4HNAME,3X,4HCODE,2(3X,4HCODE,1X),1X,16I6/)
26300 NL=0
26400 170 WRITE(6,2020) IDENT(I,K,4),(IDENT(I,K,L),L=1,3)
26500 * (FORCE(I,K,L),L=1,16)
26600 2020 FORMAT(1H7,1X,A6,2X,I4,2X,I6,2X,I6,1X,16F6.0)
26700
26800 CLOSE (2,DISP=CRUNCH)
26900 STOP
27000 END
27100
27200 C.....
27300
27400 INTEGER FUNCTION NSCANX(M,L,I)
27500
27600 C SEARCH ELEMENTS 1-L OF ARRAY M FOR AN OCCURRENCE OF I
27700
27800 DIMENSION M(1)
27900 J=L
28000 5 IF(M(J).IS.I) GO TO 10
28100 J=J-1
28200 IF (J.GT.0) GO TO 5
28300 J=0
28400 10 NSCANX=J
28500 RETURN
28600 END

```

Routine FORCES, air version



Routine FORCES, air version



ANNEX B-5
SQUADRON PROGRAM ELEMENTS

<u>PE</u>	<u>TITLE</u>
11315N	Fleet ballistic missile control systems command
24134N	A-6 squadrons
24135N	A-7 squadrons
24136N	A-18 squadrons
24142N	F-4 squadrons
24144N	F-14 squadrons
24145N	F-18 squadrons
24151N	Carrier on-deck squadrons
24152N	Early warning aircraft squadrons
24153N	Reconnaissance squadrons
24154N	Sea based electronic warfare squadrons
24155N	Shored based electronic warfare squadrons
24156N	Readiness squadrons
242322	S-2 squadrons
24233N	SH-3 squadrons
24234N	S-3 squadrons
24242N	AV-8B squadrons
24243N	Light air multi-purpose systems
24244N	AV8A squadrons
24251N	Anti-submarine warfare patrol squadrons

24262N	Readiness squadrons
24303N	Air mine countermeasure squadrons
24453N	Direct support squadrons aircraft
35112N	Oceanography
35131N	Mapping, charting, geodesy
52311N	A-4 squadrons
52313N	A-7 squadrons
52316N	F-8 squadrons
52317N	F-4 squadrons
52324N	Early warning aircraft squadrons
52325N	Reconnaissance squadrons
42326N	Sea based electronic warfare squadrons
52332N	SH-3 squadrons
52333N	S-3 squadrons
52341N	Anti-submarine warfare patrol squadrons
52371N	Coastal and river forces
52379N	Direct support squadrons, aircraft
84741N	Undergraduate pilot training
84742N	Undergraduate navigators training
84743N	Other flight training

ANNEX B-6
PROGRAM FACTORS

```

100  $RESET FREE
200  $SET AUTOBIND
300  $BIND = FROM CNA/LIB/=
400  FILE 1(TITLE="RENQJUL77/ACTPE",KIND=PETAPE,FILETYPE=2)
500  FILE 2(TITLE="CCT77NARM/SFACTORS/SHIP",KIND=DISK,FILETYPE=8)
600  FILE 3(KIND=PRINTER)
700  FILE 4(TITLE="ENREP/DICT/SHIP",KIND=DISK,FILETYPE=2)
800  FILE 5(TITLE="ENREP/FACTORS/SHIPDATA",KIND=DISK,FILETYPE=2)
900  FILE 8(KIND=PETAPE,TITLE="ENREP/UNITREQ/SHIP",BLOCKSIZE=999,
1000  * MAXRECSIZE=999,SERIALNO=000565)
1100  FILE 9(KIND=DISK,MAXRECSIZE=999,BLOCKSIZE=999,AREASIZE=10)
1200  FILE 10(KIND=DISK,MAXRECSIZE=999,BLOCKSIZE=999,AREASIZE=10)
1300  FILE 11(KIND=DISK,MAXRECSIZE=999,BLOCKSIZE=999,AREASIZE=10)
1400  FILE 12(KIND=DISK,MAXRECSIZE=999,BLOCKSIZE=999,AREASIZE=10)
1500  FILE 13(KIND=DISK,MAXRECSIZE=999,BLOCKSIZE=999,AREASIZE=10)
1600  C
1700  C      CREATES A UNIT REQUIREMENTS MATRIX FOR EACH ACT/PE/PU
1800  C      COMBINATION IN EACH YEAR, RATING BY PAYGRADE
1900  C      THE QUALITY MIX IS OBTAINED FROM THE BILLET FILE
2000  C      BY ACT AND PE
2100  C      AND THE FACTORS ARE OBTAINED FROM THE NARM
2200  C      BY PE AND PU
2300  C
2400  C      FILE 1 = RENLQUAL FILE SORTED BY ACT CODE AND THEN BY PE CODE,
2500  C      BOTH IN ASCENDING ORDER
2600  C      FILE 2 = NARM FACTOR FILE SORTED BY PU CODE THEN BY PE CODE
2700  C      THEN BY FACTOR SEQUENCE NUMBER, ALL IN ASCENDING
2800  C      ORDER
2900  C      FILE 3 = OUTPUT LISTING
3000  C      FILE 4 = THE ACT/PE/PU DICTIONARY SORTED BY ACT CODE THEN BY
3100  C      PE CODE THEN BY PE CODE, ALL IN ASCENDING ORDER
3200  C      FILE 5 = USER INPUT
3300  C      FILE 6 = OUTPUT LISTING
3400  C      FILE 8 = THE UNIT REQUIREMENTS MATRICES
3500  C      FILES 9-13 = STORAGE
3600  C
3700  COMMON /$A/ ACTCOD(191), NMCODE(191), PUCODE(191), PECODE(191),
3800  * INDEX(191,2), NM1, NM2, SHIP, AIR
3900  COMMON /$1/ NARM(95,30,15), BILLET(5,110,9), PROXY(35,15), MREC,
4000  * FIND, FLAG, NTYP, MTYP, NP, PRXC, IACT, NA, IPE, NL
4100  COMMON /$2/ IPA, KPG, JREQ(5), KREQ(5), IR
4200  COMMON /$3/ BILLTN(5,110,9)
4300  COMMON /$8/ JRATE(110), OK
4400  DIMENSION INARM(95,30,15), STORE(12480)
4500  EQUIVALENCE (INARM(1), NARM(1), STORE(1))
4600  INTEGER ACTCOD, PUCODE, PECODE, FIND, AIR, SHIP,
4700  * PROXY, PRXC, ACT, PE, FLAG, OK, A, B
4800  REAL NARM
4900  DATA IBLK/64 /
5000  DATA SHIP/4+SHIP/, AIR/4+AIR/
5100  DATA OK/6+OK/
5200  DATA JRATE/4H0100,4H0150,4H0200,4H0250,4H0300,4H0350,4H0400,4H0401
5300  * ,4H0404,4H0450,4H0500,4H0600,4H0601,4H0602,4H0604,4H0800,4H0801
5400  * ,4H0802,4H0803,4H0810,4H0900,4H1000,4H1001,4H1002,4H1010,4H1080
5500  * ,4H1100,4H1200,4H1400,4H1500,4H1611,4H1622,4H1633,4H1644,4H1655
5600  * ,4H1666,4H1700,4H1701,4H1750,4H1800,4H1900,4H2000,4H2100,4H2200
5700  * ,4H2500,4H2290,4H2300,4H2490,4H2600,4H2700,4H3100,4H3200,4H3300
5800  * ,4H3700,4H3800,4H3900,4H4000,4H4020,4H4100,4H4200,4H4300,4H4600
5900  * ,4H4700,4H4400,4H5080,4H5100,4H5300,4H5380,4H5410,4H5500,4H5600
6000  * ,4H5700,4H5800,4H6080,4H6100,4H6200,4H6205,4H6206,4H6300,4H6310
6100  * ,4H6400,4H6500,4H6520,4H6600,4H6700,4H6704,4H6705,4H6706,4H6800

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6200      *      4H6900,4H6901,4F712,4H6703,4H7000,4H7100,4H7200,4H7300,4H7500
6300      *      4H7501,4H7502,4H7503,4H7401,4H7600,4H7700,4H8000,4H8300,4H8600
6400      *      4H5000,4H6000,4F7800/
6500      C
6600      C      READ FORCE INDICATOR, SHIP OR AIR
6700      READ (5,1000) FIND
6800      1000 FORMAT(A4)
6900      IF (FIND.NE.SHIP) FIND=AIR
7000      WRITE (6,1040) FIND
7100      1040 FORMAT(1H0,2X,A4," UNIT REQUIREMENTS MATRICES ARE BEING CREATED.")
7200      C
7300      C      READ DICTIONARY ACT/PE/PU
7400      CALL RDDICT
7500      C
7600      C      READ ANY USER PROXIES
7700      CALL RDPKDX
7800      C
7900      C      COMPUTE KARM FACTOR
8000      CALL CFACF
8100      C
8200      C      INITIALIZE VARIABLES
8300      LACT=6711
8400      IF (FIND.EQ.AIR) LACT=6799
8500      NL=100
8600      MREC=0
8700      DO 65 I=1,5
8800      DO 65 J=1,110
8900      DO 65 K=1,9
9000      65 BILLET(I,J,K)=0.0
9100      ACT=0
9200      IACT=0
9300      JACT=IRLK
9400      IPE=IRLK
9500      IR=0
9600      FLAG=0
9700      PE=IRLK
9800      NDICT=1
9900      C
10000     C      READ RECORD FROM BILLET FILE
10100     C      80 IR=IR+1
10200     READ (1,505) DATA=(1,ERR=91,END=12,RESULTS=IND)
10300     *      ACT,PE,IRA,NPG,(JREQ(I),KREQ(I),I=1,5)
10400     5050 FORMAT (14X,I4,19X,A6,22X,A4,9X,I1,10X,5(I4,A1))
10500     GO TO 82
10600     C      UNUSUAL RECORD
10700     81 WRITE (6,4000) IR,IND,ACT,PE
10800     4000 FORMAT(15F,UNUSUAL RECORD=11,
10900     *      10X,12HINDICATOR IS,110,
11000     *      10X,I4,IR)
11100     C
11200     C      GOOD READ
11300     C      BY PASS RECORD IF:
11400     C      THE PE CODE IS IN ERROR, THAT IS EQUALS TH1122
11500     C      ACT RANGE FOR SHIPS IS OUTSIDE OF 1-711
11600     C      ACT RANGE FOR A/C IS OUTSIDE OF 6628-6799
11700     82 IF (PE.EQ.6FTH1122) GO TO 80
11800     IF (ACT.GT.LACT) GO TO 120
11900     IF (ACT.LT.6628.AND.FIND.EQ.AIR) GO TO 80
12000     C
12100     C      SAME ACT AS PREVIOUS RECORD, BUT NOT USED (FLAG=0)
12200     C      SAME ACT AS PREVIOUS RECORD, AND IS USED (FLAG=1)
12300     IF (ACT.EQ.IACT.AND.FLAG.EQ.0) GO TO 80
12400     IF (ACT.EQ.IACT.AND.FLAG.EQ.1) GO TO 111
12500     C

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12600 C      NEW ACTIVITY CODE
12700 C      COMPLETE THE PREVIOUS ACTIVITY
12800 IF(FLAG.LE.0) GO TO 88
12900 C      LOOK FOR PROXIES
13000 C      CHECK THE ACT-CODES
13100 83 IF(PFCXY(PFXC,6)=IACT) 84,85,87
13200 C      ERROR - SKIP THIS PROXY INPUT
13300 84 PFCXY(PFXC,8)=IBLK
13400 PFXC=PFXC+1
13500 FLAG=FLAG+1
13600 GO TO 83
13700 C      MATCH ON ACT/CODE, CHECK PE-CODES
13800 85 IF(PFCXY(PFXC,8).NE.IPE) GO TO 87
13900 C      GOOD MATCH
14000 PFXC=PFXC+1
14100 FLAG=FLAG+1
14200 GO TO 83
14300 C      WRITE RECORD
14400 87 CALL WRREC
14500 C
14600 C      RESET VARIABLES, BEGIN NEXT ACT/PE COMBINATION
14700 88 IACT=ACT
14800 IPE=PE
14900 DO 90 I=1,5
15000 DO 90 J=1,110
15100 DO 90 K=1,9
15200 90 BILLET(I,J,K)=0.0
15300 C      COMPARE NEW ACT-CODE TO LIST OF ACT CODES IN DICTIONARY
15400 NA=NSCANX(ACTCOD(NDICT),NTYP,ACT)
15500 IF(NA.GT.0.AND.NA.LE.NTYP) GO TO 95
15600 FLAG=0
15700 WRITE(3,9050) ACT
15800 9050 FORMAT(1H0,I6," ACT CODE IS NOT USED")
15900 GO TO 80
16000 C      ADD THIS RECORD TO THE QUALITY MATRIX FOR THIS ACT/PE
16100 95 FLAG=1
16200 NDICT=NA
16300 CALL ADD
16400 GO TO 80
16500 C
16600 C      FIND PE CODE AND SEE IF IT IS A NEW ONE FOR THIS ACT CODE
16700 110 IF(PE.EC.IPE) GO TO 118
16800 C
16900 C      NEW PE CODE FOR THIS ACT, WRITE RECORD FOR THE PREVIOUS ACT/PE
17000 C      CHECK FOR PROXIES
17100 C      CHECK THE ACT-CODES
17200 111 IF(PFCXY(PFXC,6)=IACT) 112,113,115
17300 C      ERROR - SKIP THIS PROXY INPUT
17400 112 PFCXY(PFXC,8)=IBLK
17500 PFXC=PFXC+1
17600 FLAG=FLAG+1
17700 GO TO 111
17800 C      MATCH ON ACT/CODE, CHECK PE-CODES
17900 113 IF(PFCXY(PFXC,8).NE.IPE) GO TO 115
18000 C      GOOD MATCH
18100 PFXC=PFXC+1
18200 FLAG=FLAG+1
18300 GO TO 111
18400 C      WRITE THIS RECORD
18500 115 CALL WRREC
18600 C      RESET VARIABLES FOR THE NEXT PE IN THIS ACT CODE
18700 DO 116 I=1,5
18800 DO 116 J=1,110
18900 DO 116 K=1,9

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```

19000      116 BILLET(I,J,K)=0.0
19100      IPE=PE
19200      FLAG=1
19300      C
19400      C      ADD THIS RECORD TO THE QUALITY MATRIX FOR THIS ACT/PE
19500      118 CALL ADD
19600      GO TO 80
19700      C
19800      C      END OF FILE ON BILLET FILE
19900      C      COMPLETE THE LAST ACTIVITY
20000      120 IF(FLAG.LE.0) GO TO 126
20100      C      LOCK FOR PROXIES
20200      C      CHECK THE ACT-CODES
20300      122 IF(PROXY(PFXC,5)-IACF) 123,124,126
20400      C      ERROR - SKIP THIS PROXY INPUT
20500      123 PROXY(PFXC,8)=IBLK
20600      PFXC=PFXC+1
20700      FLAG=FLAG+1
20800      GO TO 122
20900      C      MATCH ON ACT/CODE, CHECK PE-CODES
21000      124 IF(PROXY(PFXC,8).NE.IPE) GO TO 126
21100      C      GOOD MATCH
21200      PFXC=PFXC+1
21300      FLAG=FLAG+1
21400      GO TO 122
21500      C      WRITE RECORD
21600      126 CALL WRREC
21700      128 IR=IR-1
21800      WRITE (6,6000) IR
21900      6000 FORMAT(1H/1X,I10,14H INPUT RECORDS)
22000      LOCK 1
22100      C
22200      C      BE SURE QUALITY WAS ADDED TO ALL NARM ENTRIES
22300      WRITE (6,7000)
22400      7000 FORMAT(1H1)
22500      DO 140 I=1,NM1
22600      DO 140 J=1,NM2
22700      IF(INARM(I,J,15).LE.0) GO TO 141
22800      IF(INARM(I,J,11).EQ.0K) GO TO 140
22900      WRITE (6,7050) INARM(I,J,15),INARM(I,J,14),INARM(I,J,13),
23000      *      INARM(I,J,12)
23100      7050 FORMAT(14H+THE ACTIVITY ,A6,1X,I4,9H WITH PE ,I6,
23200      *      9H WITH PU ,I6,
23300      *      35H DOES NOT HAVE A BILLET FILE ENTRY.)
23400      140 CONTINUE
23500      C
23600      C      BE SURE ALL NEW ACTIVITIES WERE INCLUDED
23700      WRITE (6,7000)
23800      IF (NP.LT.1) GO TO 155
23900      DO 150 I=1,NP
24000      IF(PROXY(I,3).EQ.0K) GO TO 150
24100      WRITE (6,8000) (PROXY(I,J),J=1,7)
24200      8000 FORMAT(26H+PROBLEM WITH NEW ACT/PE/PL ,A6,1X,I4,1H/,I6,1H/,I6,
24300      *      4H. ,16H+PROXY IS ACT/PE ,A6,1X,I4,1H/,I6,1H.)
24400      150 CONTINUE
24500      C
24600      C      COPY THE 5 DISK FILES TO THE OUTPUT TAPE
24700      C      SEPARATE YEARS BY A FLAG RECORD WITH STORE(1)=999999
24800      155 IU=8
24900      DO 170 I=1,5
25000      JU=IU+1
25100      REWIND JU
25200      160 READ(JU,END=162) (STORE(J),J=1,7),
25300      *      ((BILLET(I,J,K),K=1,7),J=1,11)

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```

25400      WRITE(8,3000) (STORE(J),J=1,9),
25500      *      ((BILLTN(I,J,K),K=1,9),J=1,110)
25600 3000 FORMAT (310,F5.1,99JF6.1)
25700      GO TO 160
25800 160 STORE(1)=999999
25900      WRITE(8,3000) (STORE(J),J=1,9),
26000      *      ((BILLTN(I,J,K),K=1,9),J=1,110)
26100 170 CONTINUE
26200 C
26300 C      RELEASE THE SCRATCH FILES
26400      CLOSE (9)
26500      CLOSE (10)
26600      CLOSE (11)
26700      CLOSE (12)
26800      CLOSE (13)
26900      END
27000
27100 C*****
27200
27300      SUBROUTINE FDDICT
27400      COMMON /SA/ ACTCOD(191), NMCODE(191), PUCODE(191), PECODE(191),
27500      *      INDEX(191,2), NM1, NM2, SHIP, ATR
27600      COMMON /S1/ NARM(95,3),15), BILLET(5,11),9), PROXY(35,15), MREC,
27700      *      FIND, FLAG, N1YP, N1YP, NP, PRXC, IACT, NA, IPE, NL
27800      INTEGER ACTCOD, PUCODE, PECODE, FIND
27900
28000 C      INITIALIZE VARIABLES - 190 ACT/PE/PU DICTIONARY ENTRIES MAX
28100 C      - 94 ACTS MAX
28200 C      - 30 PES PER ACT MAX
28300      N1YP=190
28400      NM1=94
28500      NM2=30
28600      NL=100
28700      NAC=0
28800      IACT=)
28900 C      FEAC DICTIONARY ENTRIES
29000 C      ASSIGN EACH AN ACT NO., AND WITHIN EACH ACT A RECORD NO.
29100      READ(4,1050) N1YP
29200 1050 FORMAT(I5)
29300      IF (N1YP.GT.N1YP) N1YP=N1YP
29400      DO 6 I=1,N1YP
29500          READ(4,1060) ACTCOD(I),PECODE(I),NMCODE(I),PUCODE(I)
29600 1060 FORMAT(I4,2X,I6,2X,A6,2X,I6)
29700          IF (IACT.EQ.ACTCOD(I)) GO TO 4
29800          IACT=ACTCOD(I)
29900          NAC=NAC+1
30000          IF (NAC.GT.NM1) NAC=NM1
30100          MPE=C
30200 4      INDEX(I,1)=NAC
30300          MPE=MPE+1
30400          IF (MPE.GT.NM2) MPE=NM2
30500          INDEX(I,2)=MPE
30600          NL=NL+1
30700          IF (NL.LE.25) GO TO 6
30800          WRITE (6,1070) FIND
30900 1070 FORMAT(1H1/5X,4HACT.,4X,2HPF,5X,A4,4X,2HPU/
31000      *      5X,4HCODE,3X,4HCODE,4X,4HNAME,3X,4HCODE)
31100          NL=0
31200 6      WRITE (6,1080) ACTCOD(I),PECODE(I),NMCODE(I),PUCODE(I)
31300      *      ,INDEX(I,1),INDEX(I,2),I
31400 1080 FORMAT(1H0,4X,I4,2X,I6,2X,A6,2X,I6,2I4,I5)
31500      RETURN
31600      END
31700

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31900 C .....
31950
32000 SUBROUTINE FOPROX
32100 COMMON /SA/ ACTCOD(191), NMCODE(191), PUCODE(191), PECODE(191),
32200 INDEX(191,2), NML, N42, SHIP, AIR
32300 * COMMON /S1/ NARM(95,30,15), BILLET(5,110,2), PROXY(35,15), MREC,
32400 * FIND, FLAG, NTYP, 4TYP, NP, PRXC, IACT, NA, IPE, NL
32500 DIMENSION NPL(95), PXNARM(35,15)
32600 EQUIVALENCE (PROXY(1,1),PXNARM(1,1))
32700 INTEGER ACTCOD, PUCODE, PECODE, FIND, SHIP,
32800 * PROXY, PRXC
32900 DATA IBLK/6H /
33000
33100 C INITIALIZE VARIABLES - 35 PROXY INPUTS MAX
33200 NP=0
33300 MP=35
33400 DO 10 I=1,MP
33500 PROXY(I,1)=IBLK
33600 PROXY(I,8)=IBLK
33700 10 PROXY(I,5)=IBLK
33800
33900 C READ THE PROXY INPUTS
34000 C PROXY(NP,1) - COLS: 1- 6 - NAME OF NEW FORCE UNIT
34100 C 2 - 9-12 - NEW ACT CODE
34200 C 3 - 15-20 - NEW PE CODE
34300 C 4 - 25-28 - NEW PU CODE
34400 C 5 - 31-36 - NAME OF PROXY FORCE UNIT
34500 C 6 - 39-42 - PROXY ACT CODE
34600 C 7 - 45-50 - PROXY PE CODE
34700 C 8 - 53-58 - PROXY PE CODE, REPLACING THE LAST
34800 C DIGIT "2" WITH A "W"
34900 C 9 - 63 - FACTOR INDICATOR - IF ZERO READ
35000 C AND USE THE USER'S FACTORS,
35100 C IF NOT ZERO USE THE NARM FACTORS
35200 C PXNARM(NP,15) - COLS: 1- 5 - OVERTARD MANNING
35300 C 11 - 6-10 - BASE OPS MANNING
35400 C 12 - 11-15 - TRAINING MANNING
35500 C 13 - 16-20 - MEDICAL MANNING
35600 C 14 - 21-25 - RECRUITING + EXAMINING MANNING
35700 C 15 - 26-30 - INDIVIDUAL MANNING ( TP+P AND
35800 C HOLDING ACCT)
35900 20 NP=NP+1
36000 IF(NP.GT.MP) NP=MP
36100 READ (5,200) ,END=21) (PROXY(NP,I),I=1,9)
36200 2000 FORMAT(A6,2X,I4,2X,I6,2X,I6,2X,A6,2X,I4,2X,I6,2X,A6,I3)
36300 IF(PROXY(NP,9).NE.0) GO TO 20
36400 READ (5,2010) (PXNARM(NP,I),I=10,15)
36500 2010 FORMAT (6F5.0)
36600 GO TO 20
36700 21 NP=NP-1
36800 IF(NP.EQ.0) GO TO 50
36900
37000 C PROCESS THE PROXY INPUTS
37100 C DO 32 I=1,NP
37200 C LOOK FOR THE NEW ACT/PE IN THE DICTIONARY
37300 IT=NTYP
37400 22 J=NSCANX(ACTCOD(1),IT,PROXY(I,2))
37500 IF(J.EQ.0) GO TO 33
37600 IF(PROXY(I,3).EQ.PECODE(J)) GO TO 26
37700 IT=J-1
37800 GO TO 22
37900 26 IF=NTYP
38000 C LOOK FOR THE PROXY ACT/PE IN THE DICTIONARY
38100 27 J=NSCANX(ACTCOD(1),IF,PROXY(I,3))
38200

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38200      IF(J.EQ.0) GO TO 30
38300      IF(PROXY(I,7).EQ.PECODE(J)) GO TO 32
38400      IT=J-1
38500      GO TO 28
38600  C      ERROR - DELETE THIS INPUT
38700      30 WRITE (6,2040) (PROXY(I,J),J=1,7)
38800      2040 FORMAT(23F0 INVALID PROXY ENTRY ,A6,I5,I7,I7,3X,A6,I5,I7)
38900      PROXY(I,6)=9999
39000  C      END OF LOOP
39100      32 CONTINUE
39200  C
39300  C      SORT PROXIES ON ACTIVITY
39400      N=NP+1
39500      DO 36 I=1,NP
39600      LIM=N-1
39700      IF (LIM.LI.2) GO TO 37
39800      DO 36 J=2,LIM
39900      IF(PROXY(J-1,6).LE.PROXY(J,6)) GO TO 36
40000      DO 34 K=1,15
40100      IHOLD=PROXY(J-1,K)
40200      PROXY(J-1,K)=PROXY(J,K)
40300      34 PROXY(J,K)=IHOLD
40400      36 CONTINUE
40500  C
40600  C      COUNT NUMBER OF PROXIES PER ACTIVITY
40700      37 NAC=J
40800      IACT=0
40900      DO 38 I=1,NP
41000      IF(IACT.EQ.PROXY(I,6)) GO TO 33
41100      NAC=NAC+1
41200      IACT=PROXY(I,6)
41300      NPE(NAC)=0
41400      38 NPE(NAC)=NPE(NAC)+1
41500  C
41600  C      SORT ON PE WITHIN EACH ACT
41700      IACT=1
41800      L1=1
41900      L2=NPE(1)
42000      40 LS=0
42100      L3=L2+1
42200      L4=L1+1
42300      IF (L1.GT.L2) GO TO 45
42400      DO 44 I=L1,L2
42500      LS=LS+1
42600      LIM=L3-L5
42700      IF (L4.GT.LIM) GO TO 45
42800      DO 44 J=L4,LIM
42900      IF(PROXY(J-1,7).LE.PROXY(J,7)) GO TO 44
43000      DO 42 K=1,15
43100      IHOLD=PROXY(J-1,K)
43200      PROXY(J-1,K)=PROXY(J,K)
43300      42 PROXY(J,K)=IHOLD
43400      44 CONTINUE
43500      45 L1=L1+NPE(IACT)
43600      IACT=IACT+1
43700      L2=L2+NPE(IACT)
43800      IF(IACT.LE.NAC.AND.PROXY(L1,6).NE.9999) GO TO 40
43900  C
44000  C      PRINT THE PROXIES
44100      WRITE (6,2020)
44200      2020 FORMAT(1H1/8X,3(5X,3HNEW),8X,2(5X,5HPPROXY)/
44300      * 6X,3HNEW,4X,4HACT,4X,
44400      * 2HPE,6X,2HPU,6X,5HPROXY,3X,4HACT,6X,2HPE,
44500      *15X,"USER MANNING FACTORS"/

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44600      * 6X,4HNAME,3X,4HCODL,2(4X,4HC1)L,4X,4HNAME,4X,4HCODL,6X,
44700      * 5HCODES,15X,1CH ON-BOARD,17H BASE OPS,1CH TRAINING,1CH MED
44800      *ICAL,1)F RECRUIT,12H INDIVIDUAL/)
44900      DO 46 I=1,NF
45000      IF (PROXY(I,6).EQ.9999) GO TO 48
45100      IF (PROXY(I,9).NE.0) WRITE (6,2060) (PROXY(I,J),J=1,8)
45200      IF (PROXY(I,9).EQ.0) WRITE (6,2060) (PROXY(I,J),J=1,8),
45300      *      (PXNARN(I,J),J=10,15)
45400      2060 FORMAT(/5X,A6,16,2I8,4X,A6,16,18,2X,A6,4X,5F10.0,F12.0)
45500      46 CONTINUE
45600      I=NP+1
45700      48 NP=I-1
45800      50 PRXC=1
45900      PROXY(NP+1,6)=99999
46000      RETURN
46100      END
46200
46300      C*****
46400
46500      SUBROUTINE ADD
46600      COMMON /A1/ NARM(95,30,15), BILLET(5,110,9), PROXY(35,15), MREC,
46700      *      X(6), IACT
46800      COMMON /A2/ IPA, KPG, JREQ(5), KREQ(5), IR
46900      COMMON /A8/ JRATE(110), OK
47000      DIMENSION IVAL(9)
47100      DATA IVAL /      1HA, 1HB, 1HC, 1HD,
47200      *      1HE, 1HF, 1FG, 1HH, 1HI/
47300      C
47400      C      THIS ROUTINE DECODES A RECORD
47500      C
47600      C      FIND RATING INDEX
47700      KRA=NSCANX(JRATE(1),110,IRA)
47800      IF(KRA.EQ.0) GO TO 40
47900      C
48000      C      FIND PAYGRADE INDEX
48100      C      E9 IS IN POSITION 1, ..., E1 IS IN POSITION 9
48200      IF(KPG.LT.1.OR.KPG.GT.9) GO TO 40
48300      KPG=1)-KPG
48400      C
48500      C      COMPUTE REQUIREMENTS
48600      C      THE LAST DIGIT IN EACH REQ. FIELD IS A LETTER,
48700      C      AND MUST BE TRANSLATED TO A NUMBER
48800      DO 20 K=1,5
48900      K2=NSCANX (IVAL,9,KREQ(K))
49000      20 BILLET(K,KRA,KPG)=BILLET(K,KRA,KPG)+FLOAT((JREQ(K)*10)+K2)
49100      RETURN
49200      C
49300      C      ERROR
49400      40 WRITE(3,1000) IR,IACT,IPE,IPA,KPG,(JREQ(I),KREQ(I),I=1,5)
49500      1000 FORMAT(1H3,18,16,18,2X,A4,13,2X,5(14,A1,2X))
49600      RETURN
49700      END
49800
49900      C*****
50000
50100      SUBROUTINE CFACT
50200      COMMON /A/ ACTCOD(191), NMCODE(191), PUCODE(191), PECODE(191),
50300      *      INDEX(191,2), NM1, NM2, SHIP, AIR
50400      COMMON /A1/ NARM(95,30,15), BILLET(5,110,9), PROXY(35,15), MREC,
50500      *      FIND, FLAG, NTYP, 4TYP
50600      DIMENSION INARM(95,30,15), FACTOR(7), KEY(7,2)
50700      EQUIVALENCE (INARM(1),NARM(1))
50800      REAL NARM
50900      INTEGER ACTCOD, PUC, PE, PUCODE, SHIP, FLT,

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51000      *      FIND, SHIP, PECOUC
51100      DATA KEY / 19), 902, 923, 925, 931, 940, 941,
51200      *      1070, 1939, 1959, 1961, 1967, 1987, 1988/
51300      C
51400      C      COMPUTES THE ENLISTED MANPOWER FACTORS
51500      C      FOR EACH PU/PE PAIR
51600      C
51700      C      INITIALIZE VARIABLES
51800      IFIND=2
51900      IF (FIND.EQ.SHIP) IFIND=1
52000      IFYR=1979
52100      ILYR=1/82
52200      NL=100
52300      IEND=)
52400      C
52500      C      READ FACTOR FILE FOR THE FIRST TIME
52600      C      FILE MUST BE SORTED BY PU, THEN PE, THEN FACTOR SEQ. NO.
52700      READ (2,1000,END=11) IPU,FLT,IPE,ISEQ,TMP
52800      1000 FORMAT (I6,I2,2X,I6,I4X,I5,3X,F13.0)
52900      C
53000      C      INITIALIZE FOR A NEW PU/PE COMBINATION
53100      10 IPU=IPU
53200      PE=IPE
53300      SEQ=ISEQ
53400      FACTOR(1)=TMP
53500      NFAC=1
53600      IF=1
53700      IF (IEND.EQ.1) GO TO 111
53800      C
53900      C      CONTINUE READING FOR THIS PU/PE COMBINATION
54000      C      SUM FACTORS BY TYPE FOR LIKE PU/PE COMBINATIONS IN "FACTOR"
54100      C      COUNT NUMBER OF PAIRS IN "NFAC"
54200      C      COUNT FACTOR TYPE WITHIN A PU/PE PAIR IN "IF"
54300      30 READ (2,1000,END=11) IPU,FLT,IPE,ISEQ,TMP
54400      C
54500      C      SAME PROGRAM UNIT, PROGRAM ELEMENT, AND FACTOR
54600      IF (IPU.NE.PU.OR.IPE.NE.PE.OR.ISEQ.NE.SEQ) GO TO 32
54700      C      MAKE SURE THE TRAINING CLAMENT(72) AND TRAINING CLATMENT(62)
54800      C      ARE ASSOCIATED WITH LIKE PES, TYPE 5 AND TYPE 8 RESPECTIVELY
54900      IF (FLT.EQ.60.OR.FLT.EQ.70) GO TO 31
55000      I=IPE/100000
55100      IF (I.EQ.5.AND.FLT.EQ.72) GO TO 31
55200      IF (I.EQ.8.AND.FLT.EQ.62) GO TO 31
55300      NFAC=)
55400      FACTOR(IF)=0.0
55500      GO TO 30
55600      31 NFAC=NFAC+1
55700      FACTOR(IF)=FACTOR(IF)+TMP
55800      GO TO 30
55900      C
56000      C      SAME PROGRAM UNIT AND PROGRAM ELEMENT, BUT NEXT FACTOR
56100      32 IF (IPU.NE.PU.OR.IPE.NE.PE) GO TO 34
56200      C      COMPUTE PREVIOUS FACTOR FIRST
56300      C      IF NFAC = 0, SOMETHING WENT WRONG, FLAG IT WITH A -100.
56400      C      OTHERWISE AVERAGE THE FACTOR ACROSS LIKE PU/PE PAIRS,
56500      C      WHICH IS THE ACTUALLY AVERAGING ACROSS CLATMENT
56600      IF (NFAC.EQ.0) FACTOR(IF)=-100.
56700      IF (NFAC.GT.0) FACTOR(IF)=FACTOR(IF)/FLOAT(NFAC)
56800      C      DO NEXT FACTOR NOW
56900      IF=IF+1
57000      SEQ=ISEQ
57100      C      VERIFY THAT THE NEXT FACTOR IS THE RIGHT ONE
57200      IF (IF.GT.7) GO TO 36
57300      IF (ISEQ.NE.KEY(IF,IFIND)) GO TO 32

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57400 FACTOR(IF)=TMP
57500 NFAC=1
57600 IF (FLT.EQ.60.OR.FLT.EQ.70) GO TO 30
57700 I=IPE/100000
57800 IF (I.EQ.5.AND.FLT.EQ.72) GO TO 31
57900 IF (I.EQ.8.AND.FLT.EQ.62) GO TO 30
58000 NFAC=0
58100 FACTOR(IF)=0.
58200 GO TO 30
58300 C
58400 C NEW PROGRAM UNIT AND PROGRAM ELEMENT
58500 C COMPUTE PREVIOUS FACTOR FIRST
58600 C IF NFAC = 0, SOMETHING WENT WRONG, FLAG IT WITH A -100.
58700 C OTHERWISE AVERAGE THE FACTOR LAST ACROSS LIKE PU/PE PAIRS,
58800 C WHICH IS THE ACTUALLY AVERAGING ACROSS CLAIMENT
58900 34 IF (NFAC.EQ.0) FACTOR(IF)=-100.
59000 IF (NFAC.GT.0) FACTOR(IF)=FACTOR(IF)/FLOAT(NFAC)
59100 IF (IF.EQ.7) GO TO 40
59200 C
59300 C ERRORS
59400 WRITE (6,2000) IPU,FLT,IPE,ISE,TMP
59500 2000 FORMAT (5H PU/PE ,I6,I2,I7,I6,F6.0,15H BEGAN TOO SOON)
59600 STOP
59700 36 WRITE (6,2010) IPU,FLT,IPE,ISE,TMP
59800 2010 FORMAT (5H PU/PE ,I6,I2,I7,I6,F6.0,24H HAS MORE THAN 7 FACTORS)
59900 STOP
60000 38 WRITE (6,2020) IPU,FLT,IPE,ISE,TMP
60100 2020 FORMAT (5H PU/PE ,I6,I2,I7,I6,F6.0,26H HAS A FACTOR OUT OF ORDER)
60200 STOP
60300 C
60400 C NEW COMBINATION LOCATED IN IPU,IPE
60500 C PROCESS THE ONE LOCATED IN PU,PE
60600 C
60700 C FIND THE ACTIVITY CODE ASSOCIATED WITH THIS PU/PE
60800 40 DO 70 NT=1,NTYP
60900 IF (PU.EQ.PUCODE(NT).AND.PE.EQ.PECODE(NT)) GO TO 74
61000 70 CONTINUE
61100 GO TO 100
61200 C
61300 C MOVE FACTORS INTO THE NARM ARRAY
61400 C NA IS THE ACT NO.
61500 C NP IS THE RECORD NO. IN THIS ACT
61600 74 NA=INDEX(NT,1)
61700 NP=INDEX(NT,2)
61800 INARM(NA,NP,12)=PU
61900 INARM(NA,NP,13)=PE
62000 INARM(NA,NP,14)=ACTCODE(NT)
62100 INARM(NA,NP,15)=NMCODE(NT)
62200 C
62300 C REPLICATE THE ONBOARD FACTOR ACROSS YEARS, POSITIONS 1-5
62400 C POSITION 6 IN NARM ARRAY = BASE OPS
62500 C 7 = TRAINING
62600 C 8 = MEDICAL
62700 C 9 = RECRUITING + EXAMINING
62800 C 10 = TP+P
62900 C 11 = PERSONNEL HOLDING ACCT.
63000 DO 80 I=1,5
63100 80 NARM(NA,NP,I)=FACTOR(1)
63200 NARM(NA,NP,6)=FACTOR(2)
63300 NARM(NA,NP,7)=FACTOR(6)
63400 NARM(NA,NP,8)=FACTOR(7)
63500 NARM(NA,NP,9)=FACTOR(4)
63600 NARM(NA,NP,10)=FACTOR(5)
63700 NARM(NA,NP,11)=FACTOR(3)
63800 GO TO 10

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63000 C
63900 C NO ACTIVITY FOR THIS PU/PE COMBINATION - SKIP IT
64000 100 WRITE (3,3000) PU,PE
64100 3000 FORMAT (36H) NO ACTIVITY FOR THIS COMBINATION , 211)
64200 GO TO 10
64300 C
64400 C END OF FILE - PROCESS LAST PU/PE PAIR
64500 110 CLOSE(2,DISF=KEEP)
64600 IPU=999999
64700 IPE=999999
64800 IEND=1
64900 GO TO 34
65000 C
65100 C PRINT RESULTS FOR ONBOARD MANNING
65200 111 NL=100
65300 DO 120 I=1,NM1
65400 DO 120 J=1,NM2
65500 IF (INARM(I,J,12).EQ.0) GO TO 120
65600 NL=NL+1
65700 IF(NL.LE.25)GO TO 115
65800 WRITE (6,6000) (K,K=1FYR,1LYR)
65900 6000 FORMAT (1H1,"ONBOARD MANNING FACTORS"/1X,4HNAME,6X,2HPU,6X,2HPE,
66000 * 2X,5F10.7)
66100 NL=0
66200 115 WRITE (6,7000) INARM(I,J,13), (INARM(I,J,K), K=12,13),
66300 * (NARM(I,J,K), K=1,5)
66400 7000 FORMAT(1H0,A6,2I5,5F10.0)
66500 120 CONTINUE
66600 C
66700 C PRINT THE SUPPORT FACTORS
66800 NL=100
66900 DO 130 I=1,N1YP
67000 L=INDEX(I,1)
67100 M=INDEX(I,2)
67200 IF (INARM(L,M,12).EQ.0) GO TO 130
67300 NL=NL+1
67400 IF(NL.LE.25) GO TO 125
67500 WRITE (6,8000)
67600 8000 FORMAT (1H1/2X,4HNAME,6X,2HPU,6X,2HPE,5X,3HACT,6X,2HBASE OPS,
67700 * 2X,6HTRAINING,4X, 5X,7HMEDICAL,4X,
67800 * 1X,15HRECRUIT/EXAMING, 3X,10HTRANSIENTS,3X,
67900 * 2X,13HHOLDING ACCT.,1X/)
68000 NL=0
68100 125 WRITE (6,9000) INARM(L,M,13), (INARM(L,M,K),K=12,14),
68200 * (NARM(L,M,K),K=6,11)
68300 9000 FORMAT(2H0 ,A6,2I5,16,2X,6(4X,F8.2,4X))
68400 NARM(L,M,10)=NARM(L,M,10)+NARM(L,M,11)
68500 130 CONTINUE
68600 RETURN
68700 END
68800
68900 C *****
69000
69100 SUBROUTINE WFFEC
69200 COMMON /S1/ NARM(95,3),15), BILLET(5,110,9), PROXY(35,15), NREC,
69300 * FIND, FLAG, N1YP, N1YF, NP, PRXC, JACT, NH, JPE, NL
69400 COMMON /S2/ ACTCOD(191), NMCODE(191), PUCODE(191), PECODE(191),
69500 * INDEX(191,2), NM1, NM2, SHIP, AIR
69600 COMMON /S3/ BILLET(5,110,9)
69700 COMMON /S4/ JPATE(110), OK
69800 DIMENSION BILLET(5), INARM(95,30,15), X(5), PXNARM(35,15)
69900 EQUIVALENCE (NARM(1),INARM(1)), (PROXY(1,1),PXNARM(1,1))
70000 REAL NARM, NSCALE
70100 INTEGER FLAG, PRXC, PROXY, ACTCOD, PECODE, PUCODE, FIND

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70300      INTEGER A(1),B(1),C(1), OK
70350      C
70400      C      THIS ROUTINE SCALES THE QUALITY MATRIX BY THE NARM/USER FACTOR
70500      C      AND WRITES THE MATRIX ON TAPE
70600      C
70700      C      INITIALIZE VARIABLES - NA - DICTIONARY POSITION
70800      C      - IACT - ACTIVITY CODE BEING PROCESSED
70900      C      - IC - COUNT OF TIMES THROUGH WPREC,
71000      C      FOR EACH CALL FROM THE MAIN ROUTINE
71100      NA=NB
71200      IACT=JACT
71300      IC=1
71400      C
71500      C      CONVERT JPE TO A NUMERIC REPRESENTATION
71600      C      TO MATCH UP WITH THE NUMERIC NARM PE
71700      C      EX. 24156N TO 24156Z
71800      A(1)=6H
71900      C(1)=JPE
72000      CALL MOVE(C(1),6,A(1),1,1)
72100      B(1)=6H2
72200      IF(A(1).EQ.1HM) B(1)=6H1
72300      C(1)=JPE
72400      CALL MOVE(B(1),1,C(1),6,1)
72500      READ (C,3000,DATA=10,ERR=1) IPE
72600      3000 FORMAT (I6)
72700      GO TO 12
72800      10 WRITE (3,3010) IACT,JPE,IPE
72900      RETURN
73000      3010 FORMAT ('0 ERRUP',I6,2X,I6,I1)
73100      12 CONTINUE
73200      C
73300      C      SUM FEQ BY YEAR
73400      DO 20 I=1,5
73500      BTOTAL(I)=0.0
73600      DO 20 J=1,11
73700      DO 20 K=1,9
73800      20 BTOTAL(I)=BTOTAL(I)+BILLET(I,J,K)
73900      C
74000      C      CHECK FOR ZERO QUALITY MATRICES
74100      J=0
74200      DO 21 I=1,5
74300      IF(BTOTAL(I).GT.0) GO TO 21
74400      WRITE (3,6000) IACT,JPE,I
74500      6000 FORMAT(19F3 ZERO BILLETS FOR ,I4,1X,A6,4H IN ,I1)
74600      J=1
74700      21 CONTINUE
74800      IF(J.EQ.0) GO TO 26
74900      C
75000      C      A ZERO MATRIX WAS FOUND
75100      C      REPLACE IT WITH A NON-ZERO MATRIX FROM A PREVIOUS YEAR
75200      DO 23 I=2,5
75300      IF(BTOTAL(I).GT.0.OR.BTOTAL(I-1).LE.0) GO TO 23
75400      DO 22 J=1,11
75500      DO 22 K=1,9
75600      22 BILLET(I,J,K)=BILLET(I-1,J,K)
75700      BTOTAL(I)=BTOTAL(I-1)
75800      23 CONTINUE
75900      C
76000      C      OR REPLACE IT WITH A NON-ZERO MATRIX FROM A LATER YEAR
76100      DO 25 I=1,4
76200      J=5-I
76300      IF(BTOTAL(J).GT.0.OR.BTOTAL(J+1).LE.0) GO TO 25
76400      DO 24 K=1,110
76500      DO 24 L=1,9

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76500      24 BILLET(J,K,L)=BILLET(J+1,K,L)
76700      BTOTAL(J)=BTOTAL(J+1)
76800      25 CONTINUE
76900      26 CONTINUE
77000      C
77100      C          FIND INDICES INTO THE NARM ARRAY
77200      C          EXAMINE ACTIVITY
77300      DO 30 N=1,NTRY
77400      IF (ACT.EQ.INARM(N,1,14)) GO TO 35
77500      30 CONTINUE
77600      GO TO 45
77700      C          EXAMINE PE
77800      35 DO 40 M=1,NM2
77900      IF (PE.EQ.INARM(N,M,15)) GO TO 50
78000      40 CONTINUE
78100      C          ERROR - NO MATCH IN THE NARM FACTOR FILE
78200      45 WRITE (3,100J) NMCODE(N),JPE,IACT,IPE
78300      1000 FORMAT(14F10.4,ACTIVITY, A6, 9H WITH PE, A6, 2PH DOES NOT HAVE A NA
78400      *RM ENTRY., I6, I6, I6)
78500      GO TO 70
78600      C
78700      C          COMPUTE SCALING FACTORS AND SCALE
78800      50 DO 55 I=1,5
78900      NSCALE=0.0
79000      IF (BTOTAL(I).GT.0.0) NSCALE=NARM(N,M,I)/BTOTAL(I)
79100      DO 55 J=1,110
79200      DO 55 K=1,9
79300      55 BILLTN(I,J,K)=BILLET(I,J,K)*NSCALE
79400      C
79500      C          WRITE UNIT REQ. MATRIX FOR YEARS 1-5 ON DISK 9-13 RESPECTIVELY
79600      C          FIRST COMPUTE TOTAL FOR EACH YEAR
79700      C          IU=0
79800      DO 62 I=1,5
79900      X(I)=0.0
80000      DO 60 J=1,110
80100      DO 60 K=1,9
80200      60 X(I)=X(I)+BILLTN(I,J,K)
80300      JU=IU+1
80400      C          WRITE - PU, PE, ACT, FIVE SUPPORT FACTORS, ONBOARD TOTAL FOR
80500      C          YEAR I, AND UNIT REQUIREMENTS FOR YEAR I
80600      C          WRITE(JU) (INARM(N,M,J),J=12,14), (NARM(N,M,J),J=5,10), X(I),
80700      * (BILLTN(I,J,K),K=1,9),J=1,110)
80800      62 CONTINUE
80900      C          DISPLAY PART OF THIS RECORD
81000      NREC=NREC+1
81100      MREC=MREC+1
81200      NL=NL+1
81300      IF (NL.LE.25) GO TO 64
81400      WRITE (6,5000) (I,I=1,5)
81500      5000 FORMAT(1H1/5X,6HRECORD,2(4X,8HACTIVITY),7X,2HPU,10X,2HPE,
81600      * 23X,23HONBOARD MANNING BY YEAR/
81700      * 5X,6HNUMBER,6X,4HNAME,3(8X,4HCODE),4X,6F10.1)
81800      NL=0
81900      64 WRITE (6,4000) MREC,NREC, INARM(N,M,15), INARM(N,M,14),
82000      * (INARM(N,M,I),I=12,13), (X(I),I=1,5)
82100      4000 FORMAT(1H0,I6,I4,5X,A6,7X,I4,1X,2F12.4X,6F10.1)
82200      C          FLAG COMPLETION OF THIS PE/PU PAIR
82300      INARM(N,M,11)=OK
82400      C
82500      C          IF IC > 1, THEN THE ACT/PE PAIR HAS BEEN PROCESSED FOR
82600      C          EACH NARM PE/PU PAIR HAVING ITS QUALITY
82700      C          DETERMINE IF IT IS TO BE A PROXY FOR ANY OTHER PE/PU PAIRS
82800      IF (IC.GT.1) GO TO 70
82900      C

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83000 C      IF IC = 1, THEN STILL PROCESSING NARM PE/PU PAIRS USING
83100 C      THIS QUALITY
83200 L=1
83300 66 IF(INARM(N,M+L,13).GT.0) GOTO 68
83400 L=L+1
83500 IF(M+L.GT.NP2) GOTO 70
83600 GOTO 66
83700 68 IF(INARM(N,M,13).NE.INARM(N,M+L,13)) GO TO 70
83800 M=M+L
83900 GO TO 50
84000 C
84100 C      CHECK FOR PROXIES
84200 C      IF FLAG = IC, THEN ALL PROXY INPUTS FOR THIS ACT/PE
84300 C      HAVE BEEN PROCESSED
84400 C      IP IS THE INDEX TO THE PROXY ARRAY
84500 70 IF(FLAG.EQ.IC) RETURN
84600 IP=PRXC-FLAG+IC
84700 IC=IC+1
84800 C      SKIP PRXY INPUTS WITH ERRORS
84900 IF(PROXY(IP,6).EQ.0H ) GO TO 70
85000 IF (PROXY(IP,9).EQ.0) GO TO 10
85100 C
85200 C      THIS PROXY INPUT IS FOR A FORCE UNIT WITH NARM FACTORS,
85300 C      BUT NO QUALITY
85400 C      FIND INDICES INTO THE NARM ARRAY
85500 C      EXAMINE ACTIVITY
85600 DO 80 N=1,NP1
85700 IF(PROXY(IP,2).EQ.INARM(N,1,14)) GO TO 85
85800 80 CONTINUE
85900 GO TO 110
86000 C      EXAMINE PE AND PU CODES
86100 85 DO 90 M=1,NP2
86200 IF(PROXY(IP,3).NE.INARM(N,M,13).OR.PROXY(IP,4).NE.INARM(N,M,12))
86300 * GO TO 90
86400 IACT=PROXY(IP,2)
86500 IPE=PROXY(IP,3)
86600 PROXY(IP,3)=0K
86700 GO TO 50
86800 90 CONTINUE
86900 GO TO 110
87000 C
87100 C      THIS PROXY INPUT IS FOR A NEW FORCE UNIT, USER SPECIFIED
87200 C      FACTORS AND A PROXY
87300 C      PUT FORCE UNIT ACT, PE, PU CODES AND USER FACTORS INTO THE
87400 C      NARM ARRAY
87500 100 INARM(NM1+1,1,15)=PROXY(IP,1)
87600 INARM(NM1+1,1,14)=PROXY(IP,2)
87700 INARM(NM1+1,1,13)=PROXY(IP,3)
87800 INARM(NM1+1,1,12)=PROXY(IP,4)
87900 DO 105 J=1,5
88000 105 NARM(NM1+1,1,I)=PXNARM(IP,10)
88100 DO 106 I=6,10
88200 106 NARM(NM1+1,1,I)=PXNARM(IP,145)
88300 A=AM1+1
88400 M=1
88500 GO TO 50
88600 C
88700 C      ERROR - NO NARM INPUT FOR THIS PROXY,
88800 C      AND USER DID NOT SPECIFY FACTORS
88900 110 WRITE (3,2000) PROXY(IP,1),PROXY(IP,3)
89000 2000 FORMAT(14H0THE ACTIVITY ,A6, 9H WITH PE ,I6,28H DOES NOT HAVE A NA
89100 *RM ENTRY.)
89200 GO TO 70
89300 END

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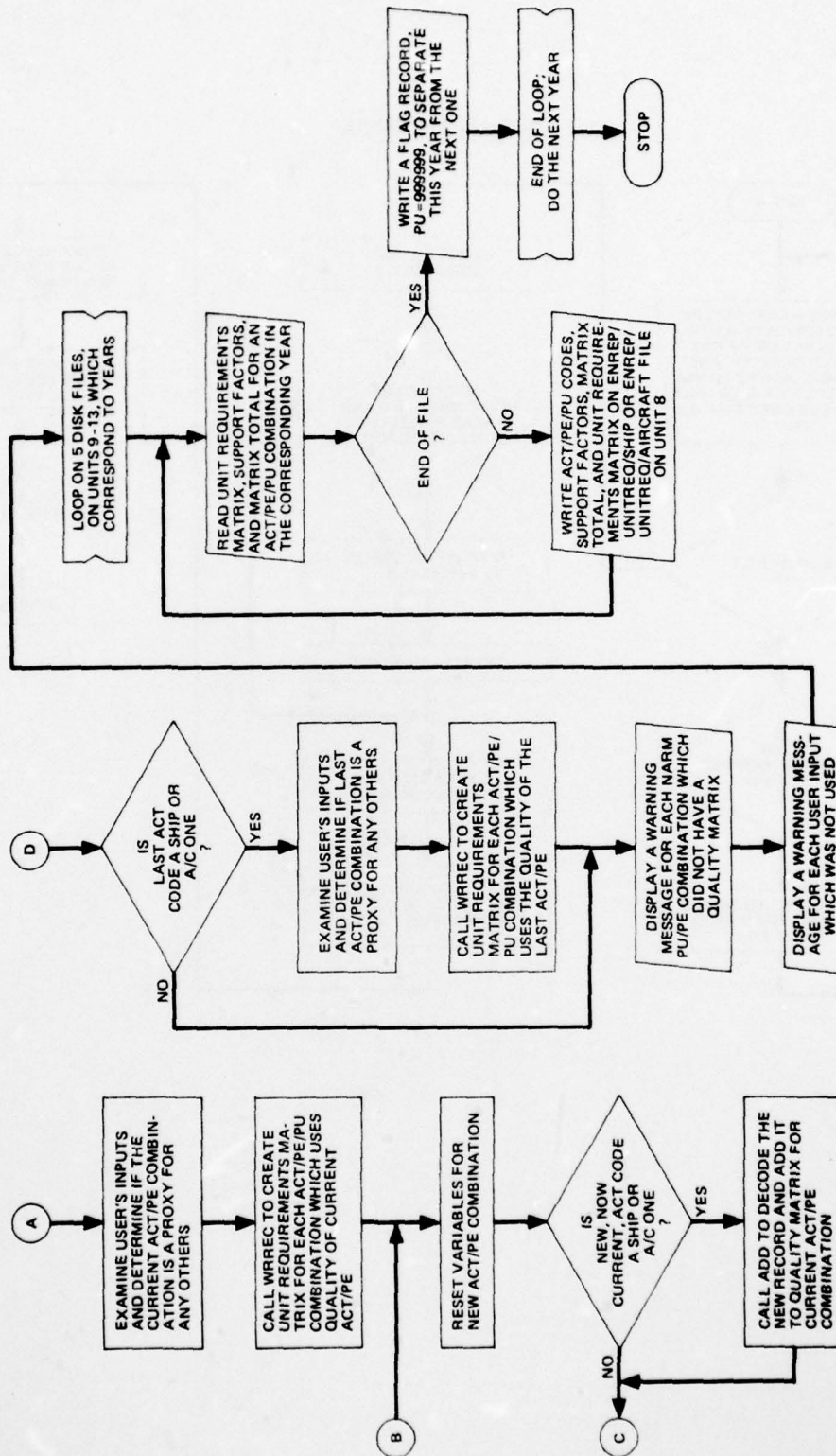
89400 C
89500 C .....
89600 C
89700     INTEGER FUNCTION NSCANX(M,L,I)
89800     DIMENSION M(1)
89900 C
90000     SEARCHES THE FIRST L ELEMENTS OF ARRAY M FOR THE FIRST
90100 C     OCCURANCE OF I
90200     J=L
90300     5 IF(M(J).IS.I) GO TO 10
90400     J=J-1
90500     IF (J.GT.0) GO TO 5
90600     J=0
90700     10 NSCANX=J
90800     RETURN
90900     END

```

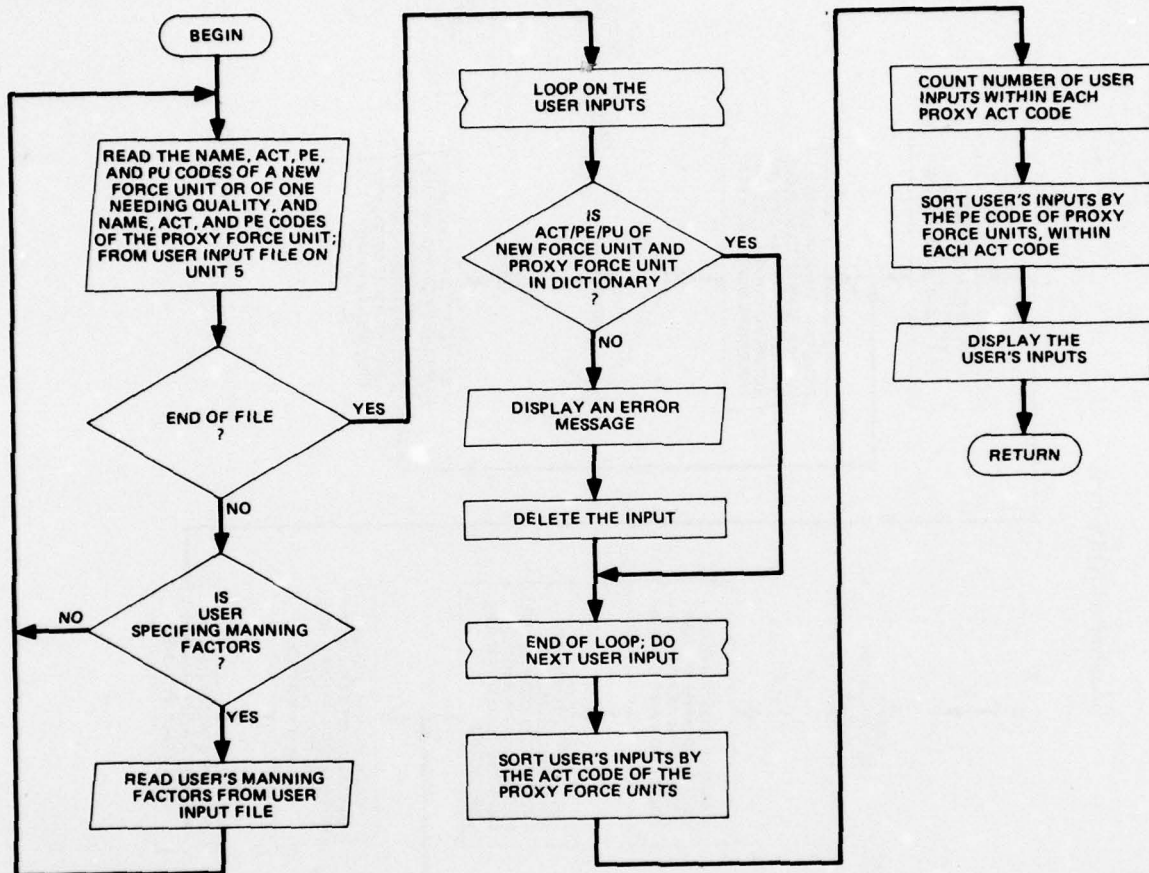
```

graph TD
    BEGIN([BEGIN]) --> R1[READ AND DISPLAY TYPE OF FORCE INDICATOR FROM USER INPUT FILE FROM UNIT 5; EITHER "SHIP" OR "AIR"]
    R1 --> R2[READ AND DISPLAY ACT/PE/PU DICTIONARY FOR SHIPS OR A/C FROM UNIT 4]
    R2 --> R3[CALL RDPX TO READ AND CHECK USER'S NEW FORCE UNIT INPUTS AND USER'S PROXY INPUTS FOR ACT/PE COMBINATIONS WHICH NEED QUALITY]
    R3 --> R4[CALL CPAC TO READ AND PROCESS NARM SHIP OR A/C MANNING FACTORS INPUT]
    R4 --> R5[READ A RECORD FROM RENQUAL/ACT PE FILE ON UNIT 1; A RECORD INCLUDES ACT/PE CODES, RATING AND PAYGRADE CODES, AND NUMBER OF BILLETTS FOR 5 YEARS]
    R5 --> D1{COMPARE THIS ACT CODE TO VALID RANGE OF CODES FOR SHIPS OR A/C ?}
    D1 -- BEFORE --> C1((C))
    D1 -- AFTER --> D2((D))
    D1 -- WITHIN --> D3{IS ACT CODE IN NEW RECORD SAME AS CURRENT ONE IS THIS NOT A SHIP OR A/C ONE ?}
    D3 -- YES --> C2((C))
    D3 -- NO --> D4{IS ACT CODE IN NEW RECORD SAME AS CURRENT ONE IS THIS A SHIP OR A/C ONE ?}
    D4 -- YES --> D5{IS PE CODE IN NEW RECORD SAME AS CURRENT ONE ?}
    D5 -- YES --> R6[CALL ADD TO DECODE NEW RECORD AND ADD IT TO QUALITY MATRIX FOR CURRENT ACT/PE COMBINATION]
    D5 -- NO --> R7[A NEW ACTIVE COMBIN- ACTION HAS BEEN READ; COMPLETE PROCESSING OF CURRENT ONE]
    R7 --> D6{IS CURRENT ACT CODE A SHIP OR A/C ONE ?}
    D6 -- NO --> B((B))
    D6 -- YES --> R8[A NEW ACT/PE COMBIN- ACTION HAS BEEN READ; COMPLETE PROCESSING OF CURRENT ONE]
    R8 --> D7{IS PE CODE IN NEW RECORD SAME AS CURRENT ONE ?}
    D7 -- YES --> R6
    D7 -- NO --> R7
    R6 --> C3((C))
    C3 --> R5
  
```

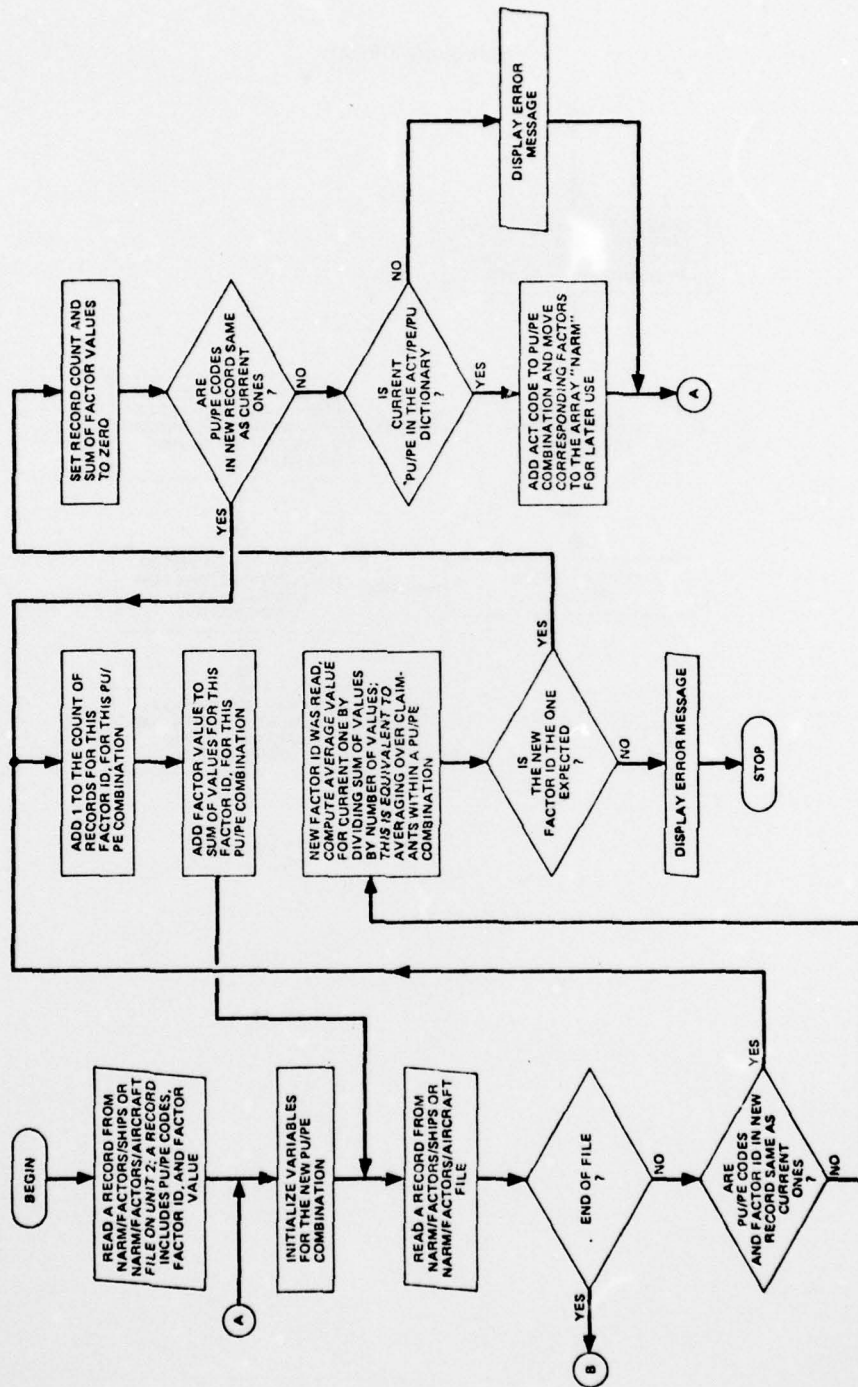
Routine FACTORS, main



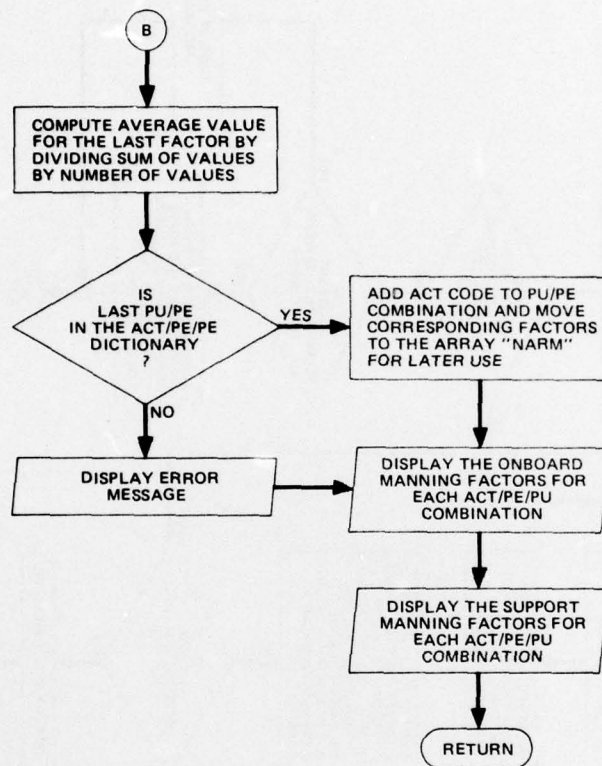
Subroutine RDPROX



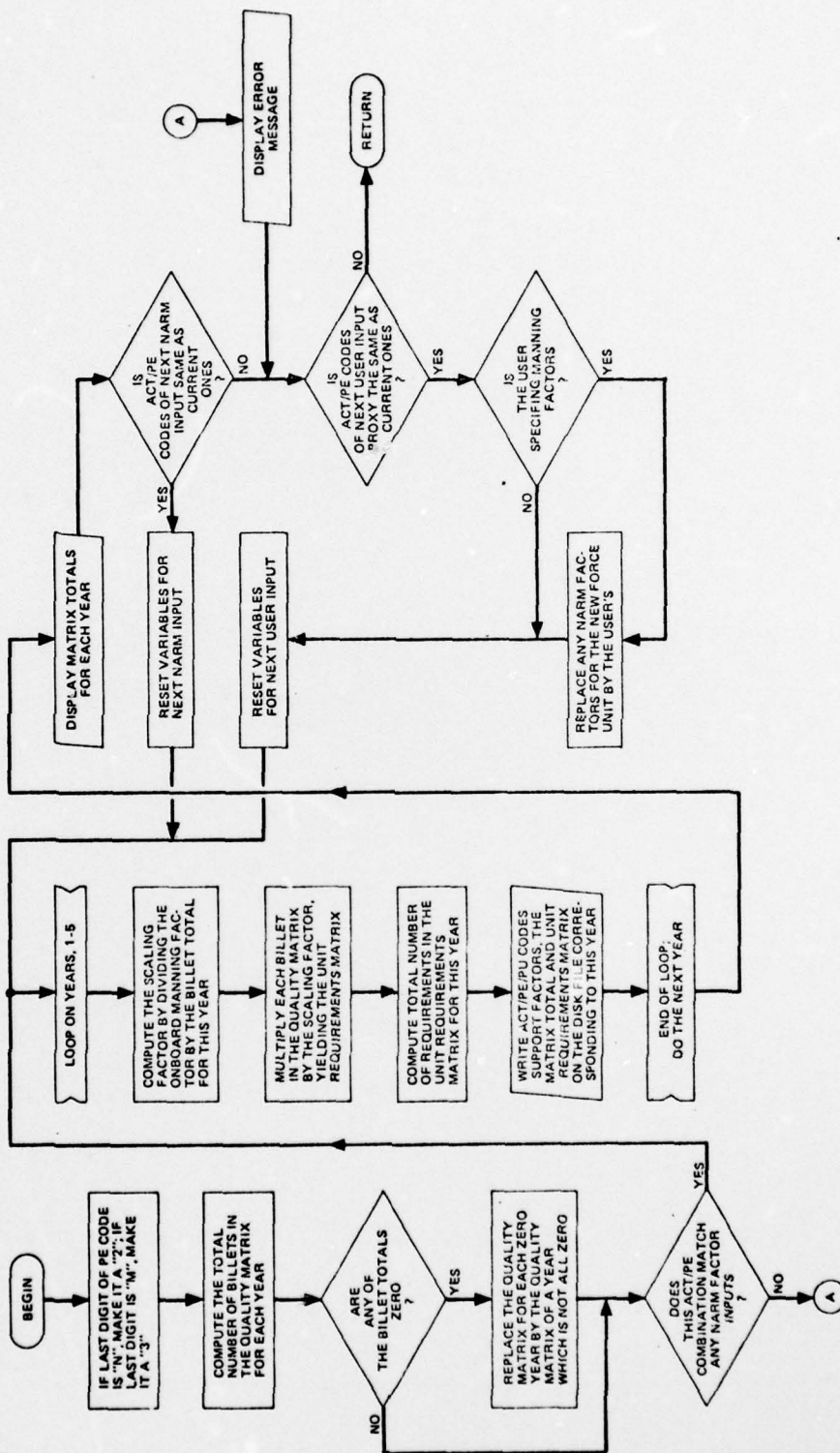
Subroutine CPFAC



Subroutine CPFAC



Subroutine WREC



ANNEX B-7

PROGRAM FACTORS/UTILITY

```

100  RESET FREE
200  FILE 1(TITLE="ENREP/UNITREQ/SHIP",KIND=PETAPE,SERIALNO=565,FILETYPE=8)
300  FILE 2(TITLE="ENREP/UNITREQ/AIR",KIND=PETAPE,SERIALNO=614,FILETYPE=8)
400  FILE 3(TITLE="ENREP/UNITREQ/ALL",KIND=PETAPE,BLOCKSIZE=999,MAXRECSIZE
500  * =999,SERIALNO=671)
600  C
700  C      THIS ROUTINE COMBINES THE SHIP AND THE A/C UNIT REQUIREMENTS
800  C      ONTO ONE TAPE
900  C
1000 DIMENSION ID(3), SPT(5), REQ(110,9)
1100 C
1200 C      LOOP ON YEARS 1-5
1300 C      DO 50 I=1,5
1400 C
1500 C      COPY A SHIP FILE FOR YEAR I
1600 10 READ (1,1000,END=20) ID,SPT,TOTAL,((REQ(J,K),K=1,9),J=1,110)
1700 1000 FORMAT (3I6,6F5.1,990F6.1)
1800 IF (ID(1).EQ.999999) GO TO 20
1900 WRITE (3,1000) ID,SPT,TOTAL,((REQ(J,K),K=1,9),J=1,110)
2000 GC TO 10
2100 20 ID(1)=999999
2200 WRITE (3,1000) ID,SPT,TOTAL,REQ
2300 WRITE (6,2000) I
2400 2000 FORMAT ("0 COPIED SHIP FILE FOR YEAR ",I3)
2500 C
2600 C      COPY A A/C FILE FOR YEAR I
2700 30 READ (2,1000,END=40) ID,SPT,TOTAL,((REQ(J,K),K=1,9),J=1,110)
2800 IF (ID(1).EQ.999999) GO TO 40
2900 WRITE (3,1000) ID,SPT,TOTAL,((REQ(J,K),K=1,9),J=1,110)
3000 GO TO 30
3100 40 ID(1)=999999
3200 WRITE (3,1000) ID,SPT,TOTAL,REQ
3300 WRITE (6,3000) I
3400 3000 FORMAT ("0 COPIED A/C FILE FOR YEAR ",I3)
3500 C
3600 50 CONTINUE
3700 LOCK 1
3800 LOCK 2
3900 LOCK 3
4000 STOP
4100 END

```


ANNEX B-8
PROGRAM SUPPORT

```

100      $RESET FREE
200      $SET AUTOIND
300      $BIAD = FROM CNA/LIB/=
400      FILE 1(TITLE="RENJUL77/PEACT",KIND=PETAPE,FILETYPE=9)
500      FILE 2(TITLE="ENREP/SUPPORT/QUALITY",KIND=PETAPE,MAXRECSIZE=992,
600      *   BLOCKSIZE=992)
700      FILE 4(KIND=PRINTER)
800      FILE 11(KIND=DISK,MAXRECSIZE=992,BLOCKSIZE=992,AREASIZE=10)
900      FILE 12(KIND=DISK,MAXRECSIZE=992,BLOCKSIZE=992,AREASIZE=10)
1000     FILE 13(KIND=DISK,MAXRECSIZE=992,BLOCKSIZE=992,AREASIZE=10)
1100     FILE 14(KIND=DISK,MAXRECSIZE=992,BLOCKSIZE=992,AREASIZE=10)
1200     FILE 15(KIND=DISK,MAXRECSIZE=992,BLOCKSIZE=992,AREASIZE=10)
1300     C
1400     C      CREATES A QUALITY REQUIREMENTS MATRIX
1500     C      FOR THE FORCE SUPPORT PROGRAM ELEMENTS
1600     C      - RATING BY PAYGRADE FOR EACH YEAR
1700     C
1800     C      FILE 1 = RENJUAL FILE SORTED BY PE
1900     C      FILE 2 = OUTPUT FILE OF QUALITY MATRICES
2000     C      FILES 11-15 = STORAGE OF QUALITY MATRICES BY YEAR
2100     C
2200     COMMON /81/ REQ(5,110,9), NYEAR, FLAG, NLINE
2300     COMMON /83/ IPE,IRA,KPG,JREQ(5),KREQ(5),NR
2400     COMMON /8A/ JPATE(110), IRATE(110)
2500     COMMON /82/ X(5,110), Y(5), VARPE(14,5), CHK(5), TNPE(5),
2600     *   TITLE(5,5), TOTAL(5,5)
2700     INTEGER PE, FLAG, TITLE, VARPE, CHK, TNPE,
2800     *   PECOEE, PENAME
2900     DATA IBLK /6H /
3000     DATA (TITLE(1,1),I=1,5) / 4HBASE, 4H OPS, 4H , 4H , 4H /
3100     *   , (TITLE(2,1),I=1,5) / 4HPAI, 4HNING, 4H , 4H , 4H /
3200     *   , (TITLE(3,1),I=1,5) / 4HEDI, 4HCAL, 4H , 4H , 4H /
3300     *   , (TITLE(4,1),I=1,5) / 4HPECP, 4HLIT, 4H+ EX, 4HAMIN, 4HG /
3400     *   , (TITLE(5,1),I=1,5) / 4HINDI, 4HVIDU, 4HAL , 4H , 4H /
3500     DATA (VARPE(I,1),I=1,9) / 6H24611N, 6H24612N, 6H24613N, 6H24614N,
3600     *   6H24615N, 6H24616N, 6H24617N, 6H24618N, 6H24619N, 6H24620N,
3700     DATA (VARPE(I,2),I=1,14) / 6H24615N, 6H24622N, 6H24633N, 6H86723N,
3800     *   6H84741N, 6H84742N,
3900     *   6H84711N, 6H84722N, 6H84731N, 6H84751N, 6H84752N,
4000     *   6H85796N, 6H86761N, 6H89731N,
4100     DATA (VARPE(I,3),I=1,2) / 6H87711N, 6H87714N,
4200     DATA (VARPE(I,4),I=1,2) / 6H81711N, 6H81713N,
4300     DATA (VARPE(I,5),I=1,2) / 6H88721N, 6H88732N,
4400     DATA CHK / 9, 14, 2, 2, 2 /
4500     DATA JRATE/4H0100,4H0150,4H0200,4H0250,4H0300,4H0350,4H0400,4H0401
4600     *   ,4H0404,4H0450,4H0500,4H0600,4H0601,4H0602,4H0604,4H0800,4H0801
4700     *   ,4H0802,4H0803,4H0810,4H0900,4H1000,4H1001,4H1002,4H1010,4H1090
4800     *   ,4H1100,4H1200,4H1400,4H1500,4H1611,4H1622,4H1633,4H1644,4H1655
4900     *   ,4H1666,4H1700,4H1701,4H1750,4H1800,4H1900,4H2000,4H2100,4H2200
5000     *   ,4H2500,4H2290,4H2300,4H2490,4H2600,4H2700,4H3100,4H3200,4H3300
5100     *   ,4H3700,4H3800,4H3900,4H4000,4H4020,4H4100,4H4200,4H4300,4H4600
5200     *   ,4H4700,4H4400,4H5000,4H5100,4H5300,4H5300,4H5410,4H5500,4H5600
5300     *   ,4H5700,4H5800,4H6000,4H6100,4H6200,4H6205,4H6206,4H6300,4H6310
5400     *   ,4H6400,4H6500,4H6520,4H6600,4H6700,4H6704,4H6705,4H6706,4H6800
5500     *   ,4H6900,4H6901,4H6902,4H6903,4H7000,4H7100,4H7200,4H7300,4H7500
5600     *   ,4H7501,4H7502,4H7503,4H7600,4H7600,4H7700,4H7700,4H8000,4H8300,4H8600
5700     *   ,4H5000,4H6000,4H7800,
5800     DATA IRATE/3HBM, 3HMA, 3HQM, 3HSM, 3HDS, 3HEM, 3HST, 3HSTG, 3HSTS,
5900     *   3HCT, 3HTM, 3HGM, 3HGM, 3HGM, 3HGM, 3HFT, 3HFTG, 3HFTB, 3HFTM,
6000     *   3HMT, 3HMM, 3HET, 3HETM, 3HETR, 3HDS, 3HPI, 3HIM, 3HJM, 3HMC,
6100     *   3HRM, 3HCTT, 3HCTA, 3HCTM, 3HCTO, 3HCTR, 3HCTT, 3HVN, 3HCYN, 3HLN,

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6200      *      3HPA ,3HPB ,3HSC ,3HOK ,3HMS ,3HSD ,3HCS ,3HTS ,3HSH ,3HJC ,
6300      *      3HPC ,3HLT ,3HDM ,3HML ,3HMM ,3HEN ,3HMF ,3HBT ,3HBR ,3HEM ,
6400      *      3HIC ,3HHT ,3HPM ,3HPL ,3HGS ,3HCU ,3HFA ,3HCE ,3HEQ ,3HEQ ,
6500      *      3HCM ,3HRU ,3HSW ,3HUT ,3HAF ,3HAV ,3HAD ,3HADP ,3HADJ ,3HAT ,
6600      *      3HAX ,3HAW ,3HAD ,3HAJ ,3HAC ,3HAB ,3HABE ,3HABF ,3HABH ,3HAE ,
6700      *      3HAM ,3HMS ,3HAMH ,3HAME ,3HPR ,3HAG ,3HTD ,3HAK ,3HAS ,3HASE ,
6800      *      3HASH ,3HASHM ,3HAZ ,3PPH ,3IPT ,3HHM ,3HDT ,3HSN ,3HFN ,3HCN ,
6900      *      3HAN /
7000      C
7100      C      INITIALIZE VARIABLES
7200      WRITE(4,2000)
7300      2000 FORMAT(1H1/28H THESE RECORDS WERE DELETED:/)
7400      NYEAR=5
7500      DO 15 I=1, NYEAR
7600      DO 10 J=1,5
7700      10 TOTAL(J,I)=0.0
7800      DO 15 J=1,110
7900      DO 15 K=1,9
8000      15 REC(I,J,K)=0.0
8100      DO 20 I=1,5
8200      20 TNPE(I)=0
8300      FLAG=0
8400      IPE=IBLK
8500      PE=IBLK
8600      IDP=IBLK
8700      NP=0
8800      C
8900      C      READ THE BILLET FILE
9000      40 NR=NR+1
9100      READ (1,9000) DATA=42,ERR=42,END=11,RESULTS=IND)
9200      *      PE,ICP,IFA,KPG,(JREQ(I),KREQ(I),I=1,5)
9300      9000 FORMAT (37X,A6,A2,20X,A4,9X,I1,10X,5(I4,A1))
9400      GO TO 50
9500      C      PARTIAL OF OTHER ERROR
9600      42 WRITE(6,3000) NR,IND,PE,IFA,KPG,(JREQ(I),KREQ(I),I=1,5)
9700      3000 FORMAT (7HERROR ,IP,2X,A10,2X,A6,2X,A4,13,2X,5(I4,A1,2X))
9800      C
9900      C      GOOD READ
10000      C      IF SAME PE AS PREVIOUS RECORD BUT NOT A FORCE SUPPORT PE,
10100      C      (FLAG=J), THEN READ AGAIN
10200      C      IF SAME PE AS PREVIOUS RECORD AND IS A FORCE SUPPORT PE,
10300      C      (FLAG>0), THEN ADD THIS RECORD TO THE QUALITY MATRIX
10400      50 IF(PE.EQ.IPE.AND.FLAG.EQ.0) GO TO 40
10500      IF(PE.EQ.IPE.AND.FLAG.NE.0) GO TO 100
10600      C
10700      C      NEW PE
10800      C      COMPLETE PROCESSING OF THE PREVIOUS ONE
10900      IF (FLAG.EQ.0) GO TO 80
11000      CALL WRREC
11100      C
11200      C      RESET VARIABLES
11300      80 IPE=PE
11400      DO 85 I=1, NYEAR
11500      DO 85 J=1,110
11600      DO 85 K=1,9
11700      85 REC(I,J,K)=0.0
11800      FLAG=0
11900      C
12000      C      IS THE NEW PE PART OF FORCE SUPPORT
12100      I=NSCANX(VARPE(1,1),70,PE)
12200      IF(I.EQ.0) GO TO 40
12300      FLAG=(I-1)/14 + 1
12400      C
12500      C      ADD THIS RECORD TO THE QUALITY MATRIX FOR THIS PE

```



```

12600      100 CALL ADD
12700      GO TO 40
12800      C
12900      C      END OF FILE
13000      C      COMPLETE LAST PE
13100      110 IF(FLAG.EQ.0) GO TO 140
13200      CALL WRREC
13300      C
13400      C      WRITE END OF FILE MARK ON DISK FILES
13500      140 J=NYEAR*10
13600      DO 142 I=1,J
13700      ENDFILE I
13800      142 REWIND I
13900      C
14000      C      MAKE SURE ALL PETS WERE COMPLETED
14100      DO 148 I=1,5
14200      IF(TAPE(I).EQ.CHK(I)) GO TO 143
14300      WRITE(6,7000) (TITLE(I,J),J=1,5),TNPE(I),CHK(I)
14400      7000 FORMAT(14H0SUPPORT ACT. ,5A4,8HCONTAINS,12,16H PES INSTEAD OF ,I2)
14500      148 CONTINUE
14600      C
14700      C      PRINT TOTALS
14800      WRITE(6,4050) (I,I=1, NYEAR)
14900      4000 FORMAT(1H1//4X,7HSUPPORT,37X,4HYEAR/
15000      *      5X,4HAREA,7X,6I10//)
15100      DO 165 I=1,5
15200      165 WRITE(6,4050) (TITLE(I,J),J=1,5), (TOTAL(I,J),J=1, NYEAR)
15300      4050 FORMAT(2H0 ,5A4,2X,6F10.0)
15400      C
15500      C      COPY 5 SUPPORT AREAS TO TAPE
15600      C      SEPARATE YEARS BY A FLAG RECORD WITH PE=999999
15700      DO 180 I=1, NYEAR
15800      WRITE(2,5000) (TOTAL(J,I),TNPE(J),J=1,5)
15900      5000 FORMAT (5(F6.0,I6))
16000      IU=I*10
16100      170 READ(IU,END=175) PE,FLAG,((REQ(I,J,K),K=1,9),J=1,110)
16200      WRITE(2,5010) PE,FLAG,((REQ(I,J,K),K=1,9),J=1,110)
16300      5010 FORMAT (2I6,990F6.0)
16400      GO TO 170
16500      175 PE=999999
16600      WRITE (2,5010) PE,FLAG,((REQ(I,J,K),K=1,9),J=1,110)
16700      180 CLOSE(IU)
16800      STOP
16900      END
17000      C
17100      C*****
17200      C
17300      SUBROUTINE ADD
17400      COMMON /81/ REQ(5,110,9), NYEAR, FLAG
17500      COMMON /83/ PE,IRA,KPG,JREQ(5),KREQ(5),NR
17600      COMMON /84/ JRATE(110), IRATE(110)
17700      DIMENSION IVAL(9)
17800      DATA IVAL /      1HA, 1HB, 1HC, 1HD,
17900      *      1HE, 1HF, 1FG, 1HH, 1HI/
18000      C
18100      C      THIS ROUTINE DECODES A RECORD
18200      C
18300      C      FIND RATING INDEX
18400      KRA=NSCANX(JRATE(1),110,IRA)
18500      IF(KRA.EQ.0) GO TO 40
18600      C
18700      C      FIND PAYGRADE INDEX
18800      C      E9 IS IN POSITION 1, ..., E1 IS IN POSITION 9
18900      IF(KFG.LT.1.CF.KPG.GT.9) GO TO 40

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AD-A079 473

CENTER FOR NAVAL ANALYSES ALEXANDRIA VA
THE ENLISTED REQUIREMENTS PLANNER (ENREP). (U)

F/G 5/9

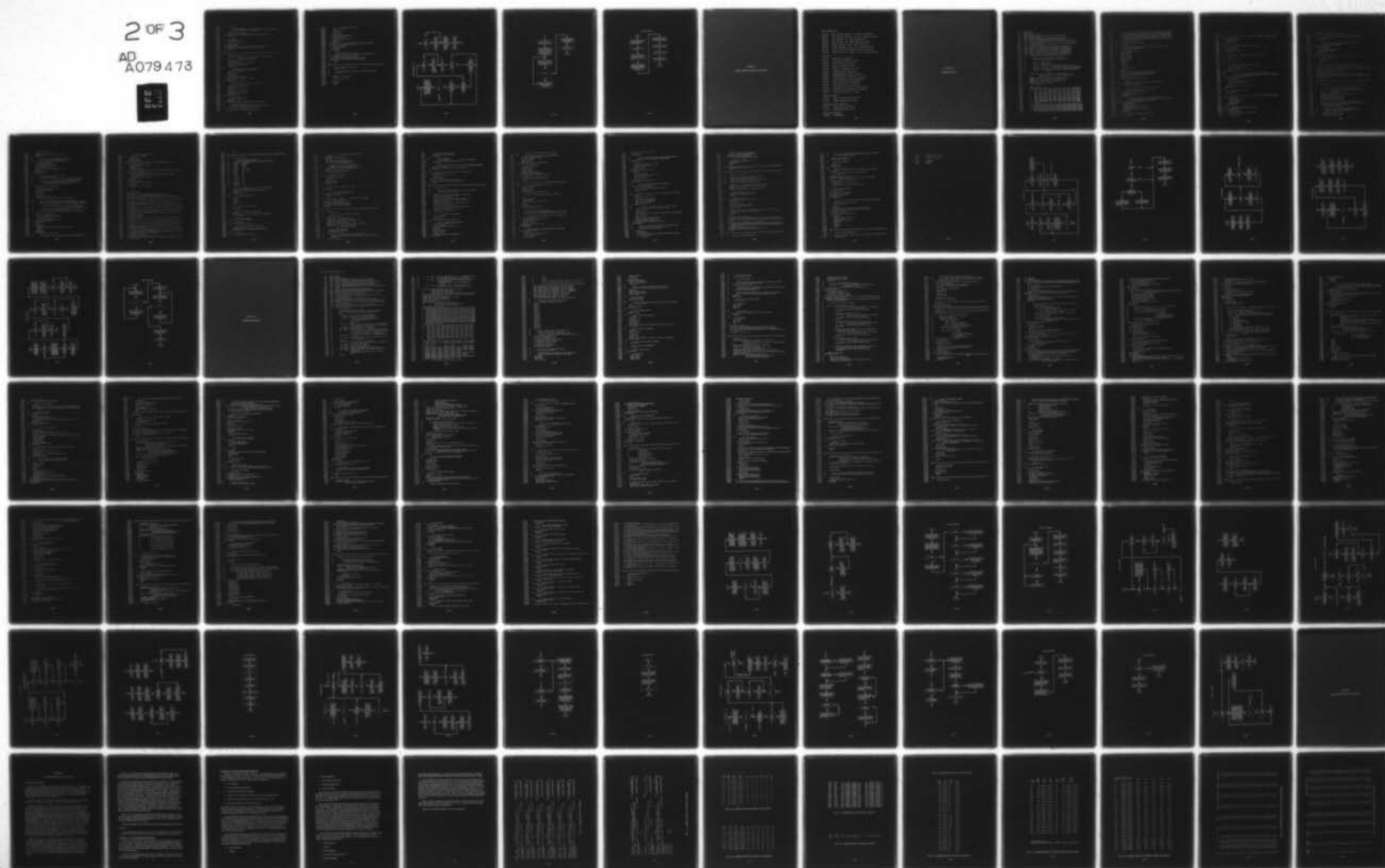
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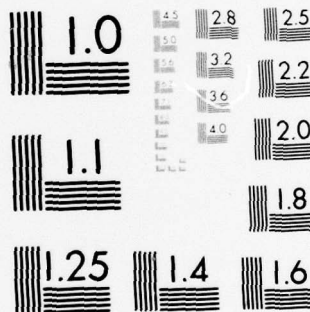
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A


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19300      KPG=10-KPG
19400      C
19500      C      COMPUTE REQUIREMENTS - LAST CHARACTER IN THE REQ. FIELD IS A
19600      C      LETTER. TRANSLATE IT TO A NUMBER
19700      C      DO 20 K=1,5
19800      K2=NSCANX (IVAL,9,KREQ(K))
19900      20 REQ(K,KRA,KPG)=REQ(K,KRA,KPG)+FLOAT((JREQ(K)+10)*K2)
20000      RETURN
20100      C
20200      C      ERROR
20300      40 NLINE=NLINE+1
20400      IF (NLINE.LT.33) GO TO 50
20500      NLINE=J
20600      WRITE (6,2000)
20700      2000 FORMAT (1H1)
20800      50 WRITE(4,1000) NR,PE,IPA,KPG,(JREQ(I),KREQ(I),I=1,5)
20900      1000 FORMAT (1F0,1R,2X,A6,2X,A4,13,2X,5(14,A1,2X))
21000      RETURN
21100      END
21200      C
21300      C.....
21400      C
21500      SUBROUTINE WRPEC
21600      COMMON /82/ X(5,110), Y(5), VARPE(14,5), CHK(5), INPE(5),
21700      *      TITLE(5,5), TOTAL(5,5)
21800      COMMON /81/ REQ(5,110,9), NYEAR, FLAG
21900      COMMON /83/ IPE
22000      COMMON /8A/ JRATE(110), IRATE(110)
22100      DIMENSION IPED(1), A(1), B(1)
22200      EQUIVALENCE (IPED(1),IPE)
22300      INTEGER A, E
22400      C
22500      C      SUM TOTAL REQ. FOR THIS SUPPORT AREA
22600      C      AND FLAG COMPLETION OF THIS PE
22700      DO 65 I=1, NYEAR
22800      X(1,I)=0.
22900      DO 60 J=1,110
23000      DO 60 K=1,9
23100      60 X(1,I)=X(1,I)+REQ(I,J,K)
23200      TOTAL(FLAG,I)=TOTAL(FLAG,I)+X(1,I)
23300      65 CONTINUE
23400      INPE(FLAG)=INPE(FLAG)+1
23500      C
23600      C      TRANSLATE PE FROM A ALPHA TO A NUMERIC ONE
23700      C      EX. 24156N BECOMES 241562
23800      A(1)=6H
23900      CALL MOVE(IPED,6,A(1),1,1)
24000      B(1)=1H2
24100      IF(A(1).EQ.1H1) B(1)=1H1
24200      A(1)=IPE
24300      CALL MOVE(B(1),1,A(1),6,1)
24400      READ(A,8060) JPE
24500      8060 FORMAT(I6)
24600      C
24700      C      WRITE MATRIX ON DISK
24800      DO 70 J=1, NYEAR
24900      IU=10+J
25000      70 WRITE(IU) JPE,FLAG,((REQ(J,K,L),L=1,9),K=1,110)
25100      C
25200      C      PRINT THE DATA FOR THIS PE
25300      C      COLLAPSE PAYGRADE AND PRINT REQ. BY PAYING AND YEAR
25400      *      WRITE(6,9000) (TITLE(FLAG,J),J=1,5),IPE,
25500      *      (I=1,97,1,19,2)
25600      9000 FORMAT(1H1/45X,5A4/36X,10/765X,5HYEAR5/

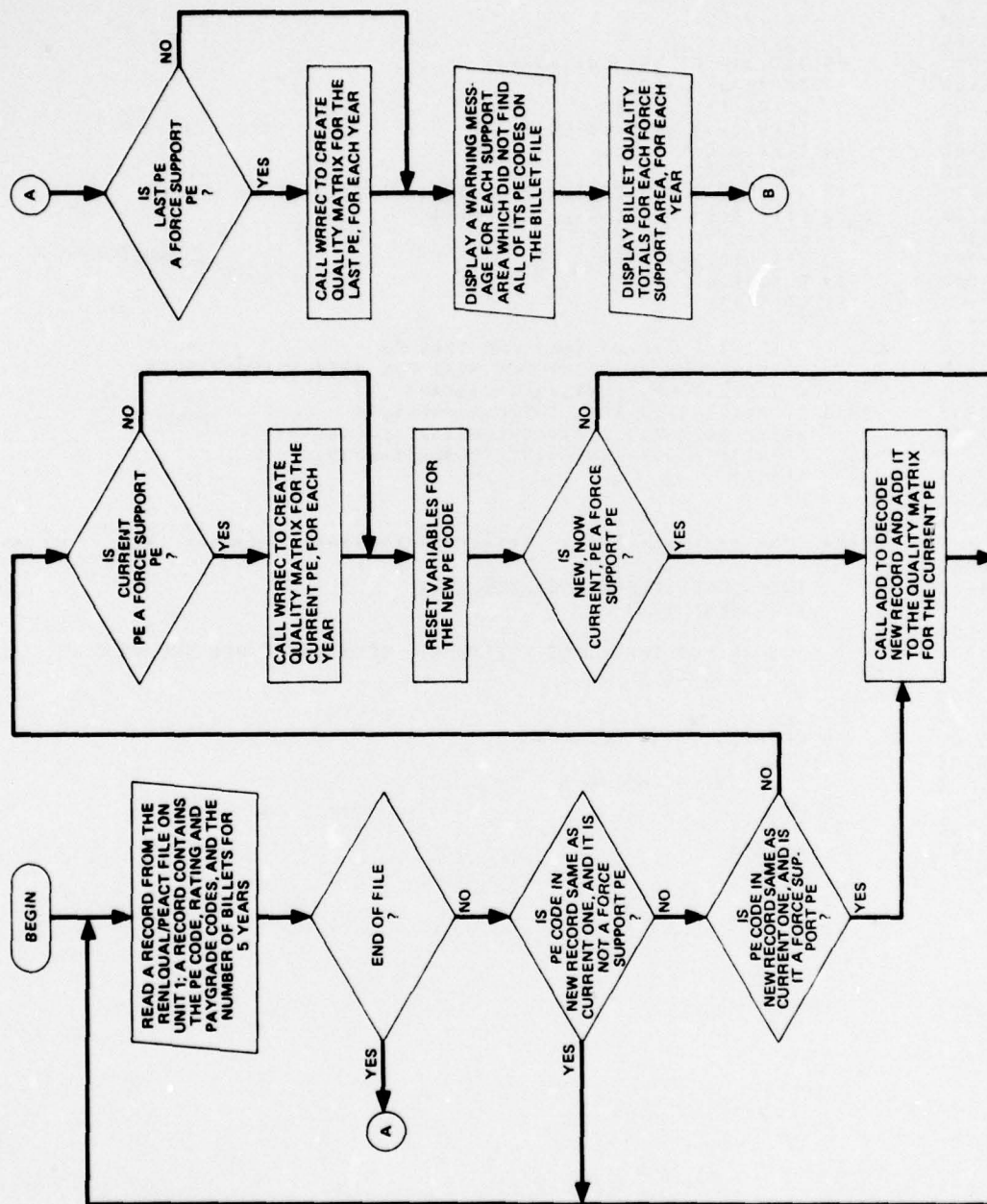
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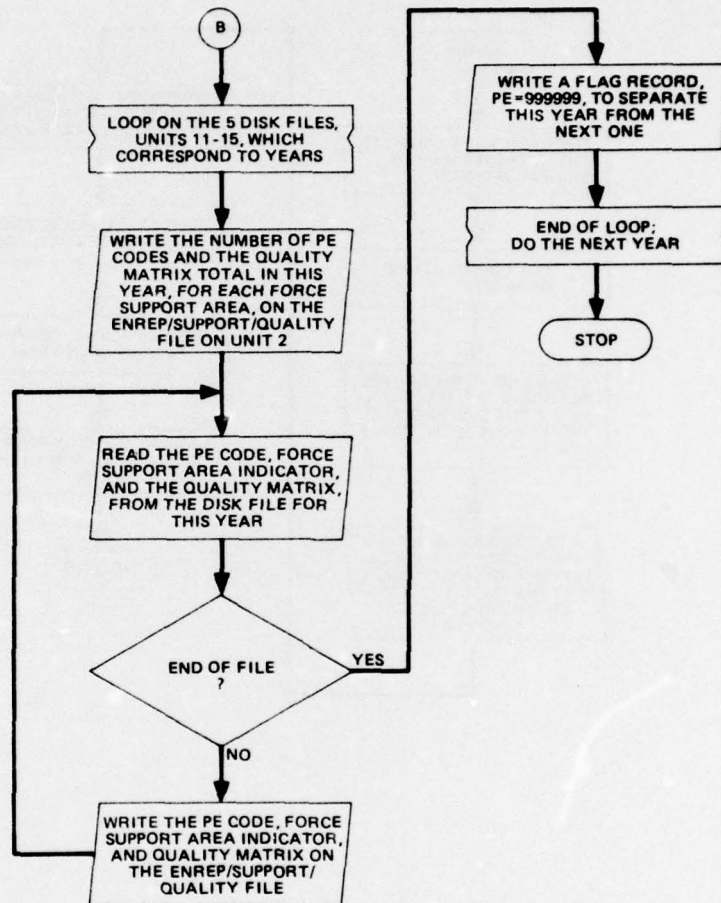
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25400      *      1,X,6HFATING,5X,6I15,I7/)
25500      DO 75 I=1, NYEAR
25600      Y(I)=0.0
25700      DO 75 J=1,110
25800      X(I,J)=0.0
25900      DO 75 K=1,9
26000      75 X(I,J)=X(I,J)+REQ(I,J,K)
26100      DO 78 J=1,110
26200      DO 76 I=1, NYEAR
26300      IF(X(I,J).NE.0.0) GO TO 77
26400      76 CONTINUE
26500      GO TO 78
26600      77 WRITE(6,8020) IRATE(J),JRATE(J),(X(I,J),I=1, NYEAR)
26700      8020 FORMAT(5X,A4,2X,A4,3X,6F15.0)
26800      DO 79 I=1, NYEAR
26900      Y(I)=Y(I)+X(I,J)
27000      79 CONTINUE
27100      78 CONTINUE
27200      C
27300      C      PRINT TOTAL BY YEAR FOR THIS PE
27400      C      PRINT CURRENT TOTAL BY YEAR FOR THIS SUPPORT AREA
27500      WRITE(6,8040) (Y(I),I=1, NYEAR)
27600      8040 FORMAT(1H0,5X,8HPE TOTAL,4X,6F15.0)
27700      WRITE (6,8050) (TOTAL(FLAG,I),I=1, NYEAR)
27800      8050 FORMAT(1H0,6X,12HPRUNING TOTAL,2X,6F15.0)
27900      RETURN
28000      END
28100      C
28200      C*****
28300      C
28400      C      INTEGER FUNCTION NSCANX(M,L,I)
28500      C      DIMENSION M(1)
28600      C
28700      C      SEARCHES THE FIRST L ELEMENTS OF ARRAY M FOR THE FIRST
28800      C      OCCURENCE OF I
28900      C
29000      J=L
29100      5 IF(M(J).IS.I) GO TO 1)
29200      J=J-1
29300      IF (J.GT.0) GO TO 5
29400      J=0
29500      10 NSCANX=J
29600      RETURN
29700      END

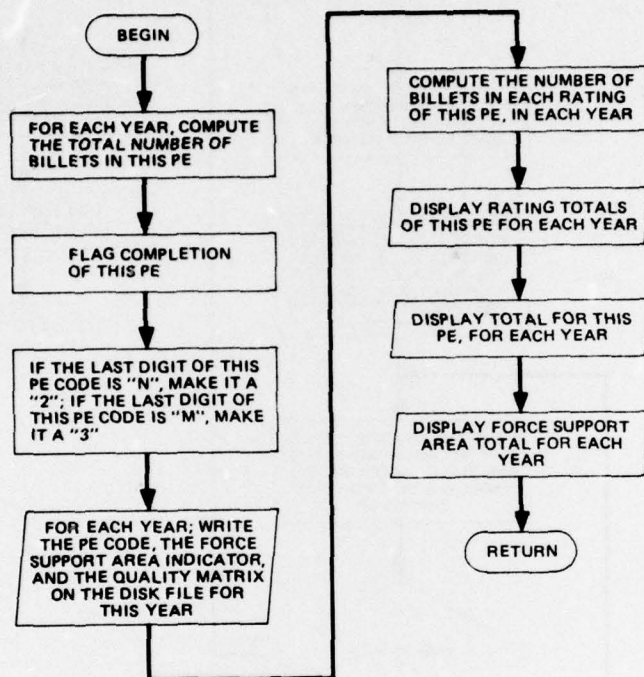
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Routine SUPPORT, main





Subroutine WREC



ANNEX B-9

FORCE SUPPORT PROGRAM ELEMENTS

Base Operations

24611N Sea control project, air base operations
24612N Sea control project, air base communications
24613N Sea control, air base operations
24614N Sea control, air base communications
24615N Fleet support, port, base operations
24616N Fleet support, port, base communications
24617N Fleet logistics support, base operations
24618N Fleet logistics support, base communications

Training

24156N Readiness squadrons
24262N Readiness squadrons (ASW)
24633N Fleet support training
84711N Recruit training units
84722N Officer candidate training
84731N General skill training
84741N Undergraduate pilot training
84742N Undergraduate navigator training
84751N Professional military education
84752N Other professional education
85796N Base operations, training
86761N Education and training health care
86723N Other health acquisition programs
89731N Training support to units

Medical Support

87711N Care in defense facilities
87714N Other health activities

Recruiting and Examining

81711N Recruiting activities
81713N Examining activities

Individual Support

88732N Transients

ANNEX B-10

PROGRAM TOTAL


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12600          GO TO 120
12700      C
12800      C
12900      C      THIS PE IS BEING USED AS A PROXY FOR OTHERS. PROCESS ALL NOW
13000      100 CALL COMPUT
13100          DO 110 I2=1,I4
13200          PE=SHARP2(I1,I2)
13300          CALL COMPUT
13400      110 CONTINUE
13500      C
13600      C      INITIALIZE VARIABLES FOR THE NEXT PE
13700      120 DO 130 I1=1,5
13800          DO 130 I2=1,110
13900          DO 130 I3=1,9
14000      130 BILLET(I1,I2,I3)=0
14100          PE=IFE
14200      C
14300      C      ADD BILLET REQUIREMENTS TO TOTAL FOR THIS PE
14400      140 CALL ADD
14500          GO TO 40
14600      C
14700      C      END OF FILE
14800      210 LOCK 10
14900      C
15000      C      PROCESS LAST PE
15100      C      IS THIS PE BEING DELETED BY THE USER?
15200      IF (NEX.LT.1) GO TO 222
15300      DO 220 I1=1,NEX
15400      IF (PE.EQ.EXCLPE(I1)) GO TO 260
15500      220 CONTINUE
15600      C
15700      C      IS THIS PE BEING USED AS A PROXY FOR OTHER PES?
15800      C      OR IS THIS PE'S QUALITY BEING REPLACED BY THAT OF ANOTHER'S
15900      C      IN WHICH CASE SKIP THIS PE
16000      222 IF (NSHT.LT.1) GO TO 234
16100          DO 232 I1=1,NSHT
16200          I4=NSHT(I1)
16300          IF (PE.EQ.SHARPE(I1)) GO TO 240
16400          IF (I4.LT.1) GO TO 232
16500          DO 230 I2=1,I4
16600          IF (PE.EQ.SHARP2(I1,I2)) GO TO 260
16700      230 CONTINUE
16800      232 CONTINUE
16900      C
17000      C      REPAIR PE - PROCESS IT
17100      234 CALL COMPUT
17200          GO TO 260
17300      C
17400      C      THIS PE IS BEING USED AS A PROXY FOR OTHERS. PROCESS ALL NOW
17500      240 PE=SHARPE(I1)
17600          CALL COMPUT
17700          IF (I4.LT.1) GO TO 260
17800          DO 250 I1=1,I4
17900          PE=SHARP2(I1,I2)
18000          CALL COMPUT
18100      250 CONTINUE
18200      C
18300      C      COMPUTE TOTALS IN THE QMN ARRAY
18400      260 DO 300 J=1,6
18500          DO 300 I=1,110
18600          DO 300 K=1,9
18700      300 QMN(J,I,10)=QMN(J,I,10)+QMN(J,I,K)
18800          DO 310 I=1,6
18900          DO 310 J=1,10

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19100      DO 311 K=1,110
19200      310 OMN(I,111,J)=OMN(I,111,J)+OMN(I,K,J)
19300      C
19400      C          PRINT THE SUM OF ALL TOTAL MATRICES FOR ALL NAVY
19500      I=ICOMP*2
19600      CALL PRINT (I)
19700      C
19800      C          FIND THOSE PROGRAM ELEMENTS NOT ON THE BILLET FILE
19900      C          AND PRINT WARNING MESSAGES
20000      335 IF (ICOMP.EQ.2) GO TO 345
20100      WRITE (6,410)
20200      DO 340 I=1,NMPE
20300      IF (NMPE(I).EQ.1BLK) GO TO 340
20400      WRITE (6,420) NMPE(I)
20500      340 CONTINUE
20600      C
20700      345 IF (IDISK.EQ.0) STOP
20800      C          REWRITE OUTPUT TAPE FROM A (PE THEN YEAR) ORDER TO A
20900      C          (YEAR THEN PE) ONE
21000      REWIND 30
21100      CALL REARRANGE(ICOMP,KYEAR)
21200      STOP
21300      C
21400      350 FORMAT (1H1,27HTHESE RECORDS WERE DELETED: /)
21500      355 FORMAT (1H1,27HTHESE RECORDS WERE OK OK : /)
21600      360 FORMAT (23HDELETED FILE 10 RECORD,17,13H INDICATOR,
21700      *      A6,BH DATA,A6,2X,14,13)
21800      380 FORMAT (1H1//32X,35HREQUIREMENTS FOR OFFICER CANDIDATES//44X,11HFI
21900      *      SCAL YEAR/6X,4HPAYGRADE,6X,611//)
22000      390 FORMAT (/10X,11,9X,6110)
22100      400 FORMAT (/79X,5HTOTAL,6X,6110/1H1)
22200      410 FORMAT (1H1," TOTALS OF THE UNIT REQUIREMENTS MATRICES")
22300      420 FORMAT (1H0,21H THE PROGRAM ELEMENT ,A6,37H IS NOT INCLUDED IN THE
22400      *      BILLET FILE.)
22500      END
22600      C
22700      C.....
22800      C
22900      C          SUBROUTINE INPUT
23000      C
23100      C          THIS SUBROUTINE READS, CHECKS, AND DISPLAYS USER INPUT
23200      C
23300      COMMON /31/ KYEAR, ICOMP, IPRNT, IDISK, NYEAR,
23400      *      EXCLPE(104), NEX, SHARPE(70), SHARP2(70,10),
23500      *      NSH(70), NSHT
23600      COMMON /33/ UFRAC(25,111), NFRAC
23700      COMMON /RATING/ IPATE(110), URATE(110), 1BLK
23800      DIMENSION IFFAC(25,111)
23900      EQUIVALENCE (UFRAC(1), IFFAC(1))
24000      DIMENSION IIMP(10), MATRIX(2,5)
24100      INTEGER EXCLPE, SHARPE, SHARP2
24200      C
24300      DATA (MATRIX(1,1),I=1,5)/4HNAR,4H SCA,3HLED,1H ,1H /
24400      DATA (MATRIX(2,1),I=1,5)/4HRIILL,4HET R,4HEQUI,4HREME,4HNNTS /
24500      DATA HNARM//4HNARM//, HBILLT//6HBILLET/
24600      DATA HNC//2HNC//, HYES//3HYES/
24700      C
24800      C          READ COMPUTATION INDICATORS, COLS: 1-6.
24900      C          "NARM" - SCALE THE BILLETS BY THE NARM INPUTS
25000      C          "BILLET" - DO NOT SCALE THE BILLETS
25100      READ (8,270) ICOMP
25200      IF (ICOMP.EQ.HNARM) ICOMP=1
25300      IF (ICOMP.EQ.HBILLET) ICOMP=2

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25400      IF (ICOMP.NE.1) ICOMP=2
25500      WRITE (6,320)
25600      WRITE (6,330) (MATRIX(ICOMP,K),K=1,5)
25700      IPRINT=1
25800      C
25900      C      READ OUTPUT FILE INDICATORS, COLS: 1-6,
26000      C      "NO" - DO NOT SAVE OUTPUT BY PE
26100      C      "YES" - DO SAVE OUTPUT BY PE ON A TAPE
26200      READ (6,270) IDISK
26300      IF (IDISK.EQ.HNO) IDISK=0
26400      IF (IDISK.EQ.HYES) IDISK=1
26500      IF (IDISK.EQ.0) GO TO 40
26600      WRITE (6,340)
26700      WRITE (6,330) (MATRIX(ICOMP,K),K=1,5)
26800      GO TO 50
26900      40 WRITE (6,350)
27000      50 CONTINUE
27100      C
27200      C      READ WHICH PES ARE BEING EXCLUDED
27300      C      10 PE CODES TO A LINE
27400      C      PE CODES GO INTO COLS: 1-6, 9-14, 17-22, 25-30, 33-38,
27500      C      41-46, 49-54, 57-62, 65-70, 73-78
27600      C      THE LAST PE CODE MUST BE FOLLOWED BY A BLANK CODE, IF
27700      C      THE LAST PE CODE IS THE LAST ONE ON A LINE THEN
27800      C      PUT THE BLANK CODE ON THE NEXT LINE
27900      NEX=0
28000      60 READ (8,380) (ITMP(I),I=1,10)
28100      DO 70 I=1,10
28200      IF (ITMP(I).EQ.IDLK) GO TO 80
28300      EXCLPE(NEX+I)=ITMP(I)
28400      70 CONTINUE
28500      NEX=NEX+10
28600      GO TO 60
28700      80 NEX=NEX+(I-1)
28800      IF (NEX.EQ.0) WRITE (6,390)
28900      IF (NEX.GT.0) WRITE (6,410) (EXCLPE(I),I=1,NEX)
29000      C
29100      C      READ - WHICH PES ARE USING THE FIRST PE'S DATA
29200      C      PUT THE PE CODE WHOSE QUALITY IS BEING USED ON THE FIRST LINE
29300      C      PUT THE PE CODES WHICH WILL USE THE QUALITY OF THE ABOVE PE
29400      C      ON THE FOLLOWING LINES, 10 PE CODES TO A LINE
29500      C      PE CODES GO INTO COLS: 1-6, 9-14, 17-22, 25-30, 33-38,
29600      C      41-46, 49-54, 57-62, 65-70, 73-78
29700      C      AS ABOVE, THE LAST PE CODE OF THOSE USING THE QUALITY OF THE
29800      C      FIRST IS FOLLOWED BY A BLANK CODE
29900      C      THE LAST INPUT OF THIS TYPE IS FOLLOWED BY A BLANK LINE
30000      NI=1
30100      90 READ (8,390) SHARPE(NI)
30200      IF (SHARPE(NI).EQ.IDLK) GO TO 120
30300      READ (8,380) (ITMP(I),I=1,10)
30400      DO 100 I=1,10
30500      IF (ITMP(I).EQ.IDLK) GO TO 110
30600      SHARP2(NI+I)=ITMP(I)
30700      100 CONTINUE
30800      I=11
30900      110 N2=(I-1)
31000      NSH(NI)=N2
31100      WRITE (6,430) SHARPE(NI), (SHARP2(NI+I),I=1,N2)
31200      NI=NI+1
31300      GO TO 90
31400      120 NSHT=NI-1
31500      IF (NSHT.EQ.0) WRITE (6,450)
31600      C
31700      C      READ FRACTION OPTION FOR BILLET REQUIREMENTS SCALING BY PE

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31800 C FIRST SET DEFAULTS TO 1.0
31900 C MAX OF 5 PE CODES
32000 N2=0
32100 DO 190 I=1,5
32200 DO 190 J=1,110
32300 190 UFRAC(I,J)=1.0
32400 C READ A PE WHOSE QUALITY IS TO BE CHANGED, COLS: 1-6
32500 200 READ (6,530) I1
32600 IF (I1.EQ.1BLK) GO TO 240
32700 N2=N2+1
32800 UFRAC(N2,111)=I1
32900 WRITE (6,540) I1
33000 C READ THE RATING NAME AND THE SCALING FACTOR, COLS: 1-4 AND 6-10
33100 210 READ (8,570) I1,X3
33200 IF (I1.EQ.1BLK) GO TO 290
33300 C FIND THE POSITION IN THE RATING ARRAY FOR THIS RATING
33400 DO 220 I2=1,110
33500 IF (I1.EQ.IRATE(I2)) GO TO 250
33600 220 CONTINUE
33700 GO TO 210
33800 230 UFRAC(N2,I2)=X3
33900 WRITE (6,580) I1,UFRAC(N2,I2)
34000 GO TO 210
34100 240 NFRAC=N2
34200 IF (N2.EQ.0) WRITE (6,590)
34300 C
34400 RETURN
34500 C
34600 270 FORMAT (A6)
34700 290 FORMAT (I5)
34800 300 FORMAT (1H/,9X,16HTHE BASE YEAR IS,15,1H./)
34900 310 FORMAT (1H/,10X,31HNO MATRICES ARE BEING COMPUTED.)
35000 320 FORMAT (1H/,10X,39HTHE FOLLOWING MATRIX IS BEING COMPUTED:/)
35100 330 FORMAT (15X,13A4)
35200 340 FORMAT (1H/,10X,46HTHE FOLLOWING PERMANENT FILE IS BEING CREATED:/)
35300 *)
35400 350 FORMAT (1H/,10X,36H4 PERMANENT FILE IS NOT BEING CREATED.)
35500 380 FORMAT (10(A6,2X))
35600 390 FORMAT (1H/,10X,54HALL PROGRAM ELEMENTS ARE BEING INCLUDED IN THE
35700 *MATRIX.)
35800 410 FORMAT (1H/,10X,50HTHE FOLLOWING PROGRAM ELEMENTS ARE BEING EXCLD
35900 *ED:/(15X,46))
36000 430 FORMAT (1H/,10X,63HTHE FOLLOWING PROGRAM ELEMENTS ARE USING THE BI
36100 *LLET DATA OF PE ,A6,1H:/(15X,A6))
36200 450 FORMAT (1H/,10X,59HTHE ARE NO PE'S WHICH ARE USING ANOTHER PE'S
36300 *BILLET DATA.)
36400 470 FORMAT (A6,4X,15)
36500 480 FORMAT (10I8)
36600 490 FORMAT (1H/,10X,49HTHE USER HAS INPUTED A QUALITY MIX MATRIX FOR P
36700 *E ,A6,1H.)
36800 510 FORMAT (1H/,10X,43HTHE USER HAS ENTERED REQUIREMENTS FOR AUC ,A4,
36900 *1H.)
37000 510 FORMAT (1H/,10X,49HNO QUALITY MIX MATRICES WERE INPUTED BY THE USE
37100 *R.)
37200 520 FORMAT (1H/,10X,41HNO REQUIREMENTS WERE ENTERED BY THE USER.)
37300 530 FORMAT (A6,4X,F5.2)
37400 540 FORMAT (1H/,10X,77HTHE BILLET REQUIREMENTS OF THE FOLLOWING RATING
37500 *S BELONGING TO PROGRAM ELEMENT ,A6)
37600 560 FORMAT (10X,52Hwill be scaled by their corresponding user fraction
37700 *://20X,1,1Hrating no.,3X,6Hfraction/)
37800 570 FORMAT (A4,1X,F5.0)
37900 580 FORMAT (20X,A4,9X,F6.2)
38000 590 FORMAT (1H/,10X,57HNO CHANGES TO THE BILLET FILE QUALITY MIX ARE B
38100 *EING MADE.)

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38200      END
38300      C
38400      C .....
38500      C
38600      SUBROUTINE NARMRD
38700      C
38800      C      FORMAT OF TAPE FROM OP-9014
38900      C      CONTAINS ENLISTED MANPOWER TOTALS BY PE AND YEAR
39000      C      COLUMNS      DATA ITEM
39100      C      1-10          BLANK
39200      C      11-16         PE
39300      C      17-20         BLANK
39400      C      21-30         SE
39500      C      31-36         SEQ. NUMBER
39600      C      37-49         76
39700      C      50-62         77
39800      C      63-75         77
39900      C      76-88         78
40000      C      89-101        79
40100      C      102-114       80
40200      C      115-127       81
40300      C      128-140       82
40400      C      141-153       83
40500      C      154-166       84
40600      C      167-179       85
40700      C      180-192       86
40800      C
40900      COMMON /35/  REQ(6), TOTAL(6), A(1), B(1), IPE(1)
41000      EQUIVALENCE (IPE(1),IPE)
41100      COMMON /36/  NARM(6,500), NMPE(500), NOPE
41200      INTEGER A, B
41300      INTEGER TOTAL
41400      C
41500      C      INITIALIZE VARIABLES
41600      C      NOPE=0
41700      C      NF=0
41800      C      IPE=IBLK
41900      C      NP=500
42000      C      IND=0
42100      C      WRITE (6,170)
42200      C
42300      C      SKIP THE 2 HEADER RECORDS
42400      C      READ (20)
42500      C      READ (20)
42600      C
42700      C      READ A RECORD FROM THE NARM TAPE
42800      C      10 NR=NF+1
42900      C      READ (20,160,END=105,ERR=20,DATA=20,RESULTS=IND)
43000      C      *      JPE,REQ
43100      C      GO TO 30
43200      C      ERROR OF SOME KIND
43300      C      20 WRITE (6,110) NR,IND,IPE
43400      C
43500      C      GOOD READ
43600      C      30 IF (JPE.NE.IPE) GO TO 60
43700      C
43800      C      SUM NEW REQUIREMENTS TO THE OTHERS
43900      C      40 DO 50 I=1,6
44000      C      50 NARM(I,NOPE)=NARM(I,NOPE)+IFIX(REQ(I)*0.5)
44100      C      GO TO 10
44200      C
44300      C      NEW PE
44400      C      60 IF (IPE.EQ.IBLK) GO TO 80
44500      C

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44700 C          CHANGE PE FROM NUMERIC TO ALPH REPRESENTATION
44700      A(1)=6H
44800      CALL MOVE (IPEO,6,A(1),1,1)
44900      B(1)=1HN
45000      IF (A(1).EQ.1H3) B(1)=1FM
45100      CALL MOVE (IPEO(1),1,NMPE(NOPE),1,5)
45200      CALL MOVE (B(1),1,NMPE(NOPE),6,1)
45300 C
45400 C          DISPLAY THE PE AND THE TOTALS BY YEAR
45500 C          AND ADD TO THE ALL NAVY TOTALS
45600      WRITE (6,140) NMPE(NOPE),(NARM(I,NOPE),I=1,6)
45700      DO 70 I=1,6
45800 70 TOTAL(I)=TOTAL(I)+NARM(I,NOPE)
45900      IF (IND.LT.0) GO TO 100
46000 C
46100 C          INITIALIZE FOR NEW PE
46200 80 NOPE=NOPE+1
46300      IF (NOPE.GT.MP) NOPE=MP
46400      IPE=JPE
46500      DO 90 I=1,6
46600 90 NARM(I,NOPE)=0
46700      NMPE(NOPE)=TOLK
46800      GO TO 40
46900 C
47000 C          END OF FILE - PROCESS THE LAST PE
47100 105 IND=-1
47200      GO TO 60
47300 C
47400 C          PRINT THE NARM ALL NAVY TOTALS
47500 100 WRITE (6,150) (TOTAL(I),I=1,6)
47600      CLOSE(20,DISP=KEEP)
47700      RETURN
47800 C
47900 110 FORMAT (23H===== FILE 20  RECORD,17,13H  INDICATOR,
48000      *      A6,2H  DATA,A6)
48100 140 FORMAT (/2X,A6,4X,7I12)
48200 150 FORMAT (/2X,5HTOTAL,5X,7I12)
48300 160 FORMAT (10X,A6,59X,7(1X,F12.4))
48400 170 FORMAT (1H1," NARM PE TOTALS")
48500      END
48600 C
48700 C *****
48800 C
48900 C          SUBROUTINE ADD
49000 C
49100 C          DECODES A RECORD FROM THE BILLET FILE
49200 C
49300      COMMON /41/ KYEAR
49400      COMMON /55/ PE, BILLET(5,11,))
49500      COMMON /RATING/ IFATE(110), JRATE(110), INLK
49600      DIMENSION IFEQ(5), IVAL(9), KRAD(1)
49700      EQUIVALENCE (KRA,KRAD(1))
49800      COMMON /17/ KRA, JRG, KREQ(5), JREQ(5), NLINE, IC
49900      DATA IVAL /      IHA, IFE, IHC, IHD,
50000      *      IHE, IHF, IFG, IHH, IHI/
50100 C
50200 C          EXAMINE THE RATING CODE
50300      K=NSCANX(JRATE(1),110,KRA)
50400      IF (K.EQ.0) GO TO 170
50500 C
50600 C          FED. ARE FY1,FY2,FY3,FY4,FY5, RESPECTIVELY
50700 C          TRANSLATE THE LETTER IN THE LAST DIGIT OF THE REQ. FIELD TO A
50800 C          NUMBER
50900      DO 150 K1=1,KYEAR

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51000      K2=NSCANX (IVAL,V,KREQ(K1))
51100      IREQ(K1)=(JREQ(K1)*10)+K2
51200      150 CONTINUE
51300      C
51400      C          EXAMINE PAYGRADE
51500      C          E-9 IS IN POSITION 1, . . . , E-1 IS IN POSITION 9
51600      C          IF (JPG.LT.1.OR.JPG.GT.9) GO TO 170
51700      C          JPG=10-JPG
51800      C
51900      C          SUM THE BILLET REQ. FROM THIS RECORD TO OTHERS FOR THIS PE
52000      C          DO 160 K2=1,KYEAR
52100      160 BILLET(K2,K,JPG)=BILLET(K2,K,JPG)+IREQ(K2)
52200      C          RETURN
52300      C
52400      C          ERROR IN THIS RECORD - PRINT IT FOR THE USER
52500      170 NLINE=NLINE+1
52600      C          IF (NLINE.LT.32) GO TO 205
52700      C          NLINE=0
52800      C          WRITE (9,375)
52900      375 FORMAT (1H1)
53000      205 WRITE (9,370) IC,IPE,KRA,JPG,IREQ
53100      370 FORMAT (1F0,I10,2X,A6,2X,A4,I3,2X,6I6)
53200      C          END
53300      C
53400      C .....
53500      C
53600      C          SUBROUTINE COMPUT
53700      C
53800      C          CREATES THE TOTAL REQUIREMENTS MATRIX FOR THIS PE
53900      C          WRITES THE MATRIX ON TAPE
54000      C
54100      COMMON /81/ KYEAR, ICOMP, IPPNT, IDISK, NYEAR
54200      COMMON /83/ UFRAC(25,111), NFRAC
54300      COMMON /84/ SAVE(110,9)
54400      COMMON /85/ PE, BILLET(5,110,9), QMN(6,111,10)
54500      COMMON /86/ NARM(6,500), NMPE(500), NOPE
54600      COMMON /87/ TOTAL(6)
54700      COMMON /8ATING/ IPATE(110), JPATE(110), IRLK
54800      C          DIMENSION IFRAC(25,111)
54900      C          EQUIVALENCE (UFRAC(1),IFRAC(1))
55000      C          DIMENSION WORK(5,110,9), BTOTAL(5), NSCALE(6)
55100      C          DIMENSION A(1), B(1), IPED(1), PED(1)
55200      C          EQUIVALENCE (PED(1),PE)
55300      C          INTEGER PE, BILLET, A, B, PED
55400      C          REAL NSCALE
55500      C
55600      C          FLOAT BILLET REQUIREMENTS
55700      C          DO 50 I=1,KYEAR
55800      C          DO 50 J=1,110
55900      C          DO 50 K=1,9
56000      50 WORK(I,J,K)=FLOAT(BILLET(I,J,K))
56100      C
56200      C          MULTIPLY RATINGS BY USER FRACTION
56300      C          IF (NFRAC.LT.1) GO TO 100
56400      C          DO 70 L=1,NFRAC
56500      C          IF (PE.EQ.IFRAC(L,111)) GO TO 80
56600      70 CONTINUE
56700      C          GO TO 100
56800      80 DO 90 I=1,KYEAR
56900      C          DO 90 J=1,110
57000      C          DO 90 K=1,9
57100      90 WORK(I,J,K)=WORK(I,J,K)*UFRAC(L,J)
57200      100 CONTINUE
57300      C

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57400 C      COMPUTE MATRIX NOT ADJUSTED BY THE NARM
57500 C
57600 C      ADD BILLETS FOR THIS PE TO ALL NAVY MATRIX
57700 IF (ICOMP.EQ.1) GO TO 140
57800 DO 110 I=1,KYEAR
57900 DO 110 J=1,110
58000 DO 110 K=1,9
58100 110 GNM(I,J,K)=GNM(I,J,K)+WORK(I,J,K)
58200 C
58300 C      WRITE OUTPUT TAPE
58400 DO 120 I=1,KYEAR
58500 TOTAL(I)=0.0
58600 DO 120 J=1,110
58700 DO 120 K=1,9
58800 SAVE(J,K)=WORK(I,J,K)
58900 120 TOTAL(I)=TOTAL(I)+SAVE(J,K)
59000 IF (IDISK.EQ.1) WRITE(30) PE,I,SAVE
59100 130 CONTINUE
59200 C      PRINT YEARLY TOTALS FOR THIS PE
59300 IF (IPRNT.EQ.1) CALL PRINT (3)
59400 RETURN
59500 C
59600 C      MATRIX ADJUSTED BY NARM REQUIREMENTS BEING COMPUTED:
59700 C
59800 C      SUM BILLET REQUIREMENTS BY YEAR
59900 140 DO 150 I=1,KYEAR
60000 BTOTAL(I)=0.0
60100 DO 150 J=1,110
60200 DO 150 K=1,9
60300 150 BTOTAL(I)=BTOTAL(I)+WORK(I,J,K)
60400 C
60500 C      CHECK FOR ZERO QUALITY MATRICES IN EACH YEAR
60600 I=J
60700 J=J
60800 DO 151 K=1,KYEAR
60900 L=KYEAR+1-K
61000 IF (BTOTAL(L).LE.0.) GO TO 151
61100 I=L
61200 J=J+1
61300 151 CONTINUE
61400 IF (J.EQ.KYEAR) GO TO 162
61500 IF (I.EQ.0) GO TO 162
61600 C
61700 C      A ZERO MATRIX HAS BEEN FOUND
61800 IF (BTOTAL(I).LE.0..AND.BTOTAL(KYEAR).GT.0.) GO TO 154
61900 IF (BTOTAL(I).LE.0..AND.BTOTAL(KYEAR).LE.0.) GO TO 157
62000 C
62100 C      REPLACE IT WITH A NONZERO ONE FROM A PREVIOUS YEAR
62200 DO 153 I=2,KYEAR
62300 IF (BTOTAL(I).GT.0.) GO TO 153
62400 BTOTAL(I)=BTOTAL(I-1)
62500 DO 152 J=1,110
62600 DO 152 K=1,9
62700 152 WORK(I,J,K)=WORK(I-1,J,K)
62800 153 CONTINUE
62900 GO TO 162
63000 C
63100 C      REPLACE IT WITH A NONZERO ONE FROM A LATER YEAR
63200 154 DO 156 I=1,KYEAR-1
63300 J=KYEAR-I
63400 IF (BTOTAL(J).GT.0.) GO TO 156
63500 BTOTAL(J)=BTOTAL(J+1)
63600 DO 155 K=1,110
63700 DO 155 L=1,9

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63900 155 WORK(J,K,L)=WORK(J+1,K,L)
64000 156 CONTINUE
64100 GO TO 162
64200 C
64300 C BOTH THE FIRST AND THE LAST YEAR HAVE ZERO MARICES -
64400 C REPLACE THEM WITH ONE FROM A MIDDLE YEAR
157 J=1-1
64500 DO 159 K=1,J
64600 L=I-K
64700 IF (BTOTAL(L).GT.0.) GO TO 159
64800 BTOTAL(L)=BTOTAL(L+1)
64900 DO 159 M=1,110
65000 DO 158 N=1,9
158 WORK(L,M,N)=WORK(L+1,M,N)
65100 159 CONTINUE
65200 I=I+1
65300 DO 161 J=I,KYEAR
65400 IF (BTOTAL(J).GT.0.) GO TO 161
65500 BTOTAL(J)=BTOTAL(J-1)
65600 DO 160 K=1,110
65700 DO 160 L=1,9
65800 160 WORK(J,K,L)=WORK(J-1,K,L)
65900 161 CONTINUE
66000 C
66100 C FIND CORRESPONDING PE IN THE NARM ARRAY
66200 162 IN=NSCANX(NARPE(1),NARPE,PE)
66300 IF (IN.EQ.0) GO TO 166
66400 C IF NOT FOUND, WRITE WARNING MESSAGE
66500 C WRITE (6,210) PE
66600 C RETURN
66700 C
66800 C CONVERT THE APLH PE IN "PE" TO A NUMERIC ONE IN "IPE"
66900 C
67000 166 A(1)=6H
67100 CALL MOVE (PED,6,A,1,1)
67200 B(1)=1H2
67300 IF (A(1).EQ.1HM) B(1)=1H1
67400 CALL MOVE (PED,1,IPED,1,5)
67500 CALL MOVE (B,1,IPED,6,1)
67600 READ (IPED,167) IPE
67700 167 FORMAT (I6)
67800 C
67900 C SCALE THE BILLET QUALITY MATRIX TO THE NARM TOTAL
68000 C FOR YEARS 1-5, AND WRITE MATRIX ON TAPE
68100 C
68200 DO 180 I=1,KYEAR
68300 TOTAL(I)=0.0
68400 NSCALE(I)=0.0
68500 IF (BTOTAL(I).GT.0.0) NSCALE(I)=FLOAT(NARM(I,IN))/BTOTAL(I)
68600 DO 170 J=1,110
68700 DO 170 K=1,9
68800 SAVE(J,K)=WORK(I,J,K)*NSCALE(I)
68900 QPK(I,J,K)=CKN(I,J,K)+SAVE(J,K)
69000 170 TOTAL(I)=TOTAL(I)+SAVE(J,K)
69100 IF (IDISK.EQ.1) WRITE(30) IPE,I,SAVE
69200 180 CONTINUE
69300 C
69400 C SCALE THE BILLET QUALITY MATRIX TO THE NARM TOTAL
69500 C FOR YEAR 6, USE THE QUALITY OF YEAR 5,
69600 C AND WRITE THE MATRIX ON TAPE
69700 I=6
69800 TOTAL(I)=0.0
69900 NSCALE(I)=0.0
70000 IF (BTOTAL(KYEAR).GT.0.0) NSCALE(I)=FLOAT(NARM(I,IN))/
70100 * BTOTAL(KYEAR)
70200 DO 190 J=1,110

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70300      DO 150 K=1,4
70400      SAVE(J,K)=WCFN(KYEAR,J,K)*NSCALE(I)
70500      QMN(I,J,K)=CPN(I,J,K)+SAVE(J,K)
70600 150 TOTAL(I)=TOTAL(I)+SAVE(J,K)
70700      IF (IDISK.EQ.1) WRITE(39) IPE,J,SAVE
70800 C
70900 C      DISPLAY THE TOTALS
71000 C      IF (IPRT.EQ.1) CALL PRINT (1)
71100 C      NMPE(IN)=IELK
71200 C      RETURN
71300 210 FORMAT (/10X,71H THERE IS NO ENTRY IN THE FILE OF NARM REQUIREMENTS
71400 * CORRESPONDING TO PE ,A6,1H.)
71500 C      END
71600 C
71700 C *****
71800 C
71900 C      SUBROUTINE PRINT (NPR)
72000 C
72100 C      THIS ROUTINE PRINTS THE FOLLOWING MATRICES:
72200 C      1 NARM SCALED TOTALS FOR EACH PE
72300 C      2 NARM SCALED QUALITY MIX MATRIX FOR ALL NAVY.
72400 C      3 BILLET REQUIREMENTS TOTALS FOR EACH PE
72500 C      4 BILLET REQUIREMENTS FOR ALL NAVY.
72600 C
72700 C      COMMON /$1/ KYEAR, ICOMP, IPPNT, IDISK, NYEAR
72800 C      COMMON /$5/ PE, BILLET(5,11), QMN(5,111,10)
72900 C      COMMON /$7/ TOTAL(6)
73000 C      COMMON /$RATING/ IRATE(110), JRATE(110), IBLK
73100 C
73200 C      MATRIX 1 AND 3
73300 C      IF (NPR.NE.1.AND.NPR.NE.3) GO TO 10
73400 C      WRITE (6,20) PE,(TOTAL(I),I=1,5)
73500 C      RETURN
73600 C
73700 C      MATRIX 2 AND 4
73800 10 IF (NPR.NE.2.AND.NPR.NE.4) RETURN
73900 C      DO 20 I=1,6
74000 C      IYF=NYEAR+1-I
74100 C      WRITE (6,90) IYF
74200 C      IF (NPR.EQ.2) WRITE (6,100)
74300 C      IF (NPR.EQ.4) WRITE (6,110)
74400 C      WRITE (6,120)
74500 C
74600 C      WRITE (6,130) (IRATE(J),JRATE(J),(QMN(I,J,K),K=1,10),J=1,110)
74700 C      WRITE (6,140) (QMN(I,111,J),J=1,10)
74800 20 CONTINUE
74900 C      RETURN
75000 C
75100 80 FORMAT (5X,A6,5X,7F12.0/)
75200 90 FORMAT (1H1//50X,34H REQUIREMENTS FOR ALL NAVY IN YEAR ,I4,1H.)
75300 100 FORMAT (1H0,43X,49H(BILLET REQUIREMENTS SCALED BY NARM REQUIREMENT
75400 *S))
75500 110 FORMAT (1H0,54X,21H(BILLET REQUIREMENTS))
75600 120 FORMAT (1H0,61X,8HPAYGRADE,45X,6H RATING/9X,6H RATING,5X,7X,3HE-9,7X
75700 *3HE-8,7X,3HE-7,7X,3HE-6,7X,3HE-5,7X,3HE-4,7X,3HE-3,7X,3HE-2,7X,3H
75800 *E-1,5X,5HTOTAL/)
75900 130 FORMAT (7X,A3,1X,A4,5X,10F10.0)
76000 140 FORMAT (7X,8HPAYGRADE/10X,5HTOTAL,5X,10F10.0)
76100 C      END
76200 C
76300 C *****
76400 C
76500 C      SUBROUTINE FEAPAN(ICOMP,KYEAR)

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76800 C
76900 C      THIS ROUTINE REFORMATS THE OUTPUT FROM AN (PE THEN YEAR)
77000 C      TO A (YEAR THEN PE) FORMAT
77100 C
77200 C      COMMON /14/ REQ(110,9)
77300 C      COMMON /87/ TOTAL(6)
77400 C
77500 C      INITIALIZE VARIABLES
77600 C      IR=0
77700 C      DO 10 I=1,6
77800 C      10 TOTAL(I)=0.0
77900 C
78000 C      READ THE FIRST TAPE
78100 C      WRITE EACH MATRIX ON THE DISK CORRESPONDING TO ITS YEAR
78200 C      20 IR=IR+1
78300 C      READ (3),END=4,ERR=22,DATA=22,RESULTS=IND)
78400 C      * IPE,IYR,FEG
78500 C      GO TO 30
78600 C      22 WRITE(6,1000) IR,IND,IPE,IYR
78700 C      1000 FORMAT(23HCOEFF OF FILE 30 RECORD,17,13H INDICATOR,
78800 C      * A6.8H DATA,A6,15)
78900 C      30 DO 35 K=1,9
79000 C      35 TOTAL(IYR)=TOTAL(IYR)+REQ(24,K)
79100 C      JYR=IYR+40
79200 C      WRITE(JYR) IPE,((REQ(J,K),K=1,9),J=1,110)
79300 C      GO TO 20
79400 C
79500 C      DISPLAY CHECK NUMBERS
79600 C      40 DO 45 I=1,6
79700 C      WRITE(6,3000) I
79800 C      3000 FORMAT(1H0,5H YEAR,13)
79900 C      WRITE(6,3050) TOTAL(I)
80000 C      3050 FORMAT(5X,9F10.0)
80100 C      45 TOTAL(I)=0.0
80200 C      LOCK 30
80300 C
80400 C      READ THE DISK FILES BY YEAR AND THEN COPY TO OUTPUT TAPE
80500 C      IEND=46
80600 C      IF (ICOMP.EQ.2) IEND=40+K*YEAR
80700 C      DO 80 I=41,IEND
80800 C      L=I-40
80900 C      REWIND I
81000 C      50 READ(I,END=70) IPE,((REQ(J,K),K=1,9),J=1,110)
81100 C      WRITE(4,2000) IPE,L,((REQ(J,K),K=1,9),J=1,110)
81200 C      2000 FORMAT(216,990F6.1)
81300 C      DO 50 J=1,9
81400 C      50 TOTAL(L)=TOTAL(L)+REQ(24,J)
81500 C      GO TO 50
81600 C      70 IPE=999999
81700 C      WRITE(40,2000) IPE,L,REQ
81800 C      WRITE(6,3000) L
81900 C      WRITE(6,3050) TOTAL(L)
82000 C      80 CONTINUE
82100 C      LOCK 41
82200 C      LOCK 40
82300 C      RETURN
82400 C      END
82500 C
82600 C
82700 C      *****
82800 C
82900 C      INTEGER FUNCTION NSCANX(M,L,I)
83000 C
83100 C      SEARCH THE FIRST L ELEMENTS OF ARRAY M FOR THE FIRST OCCURANCE OF I
83200 C      DIMENSION M(1)

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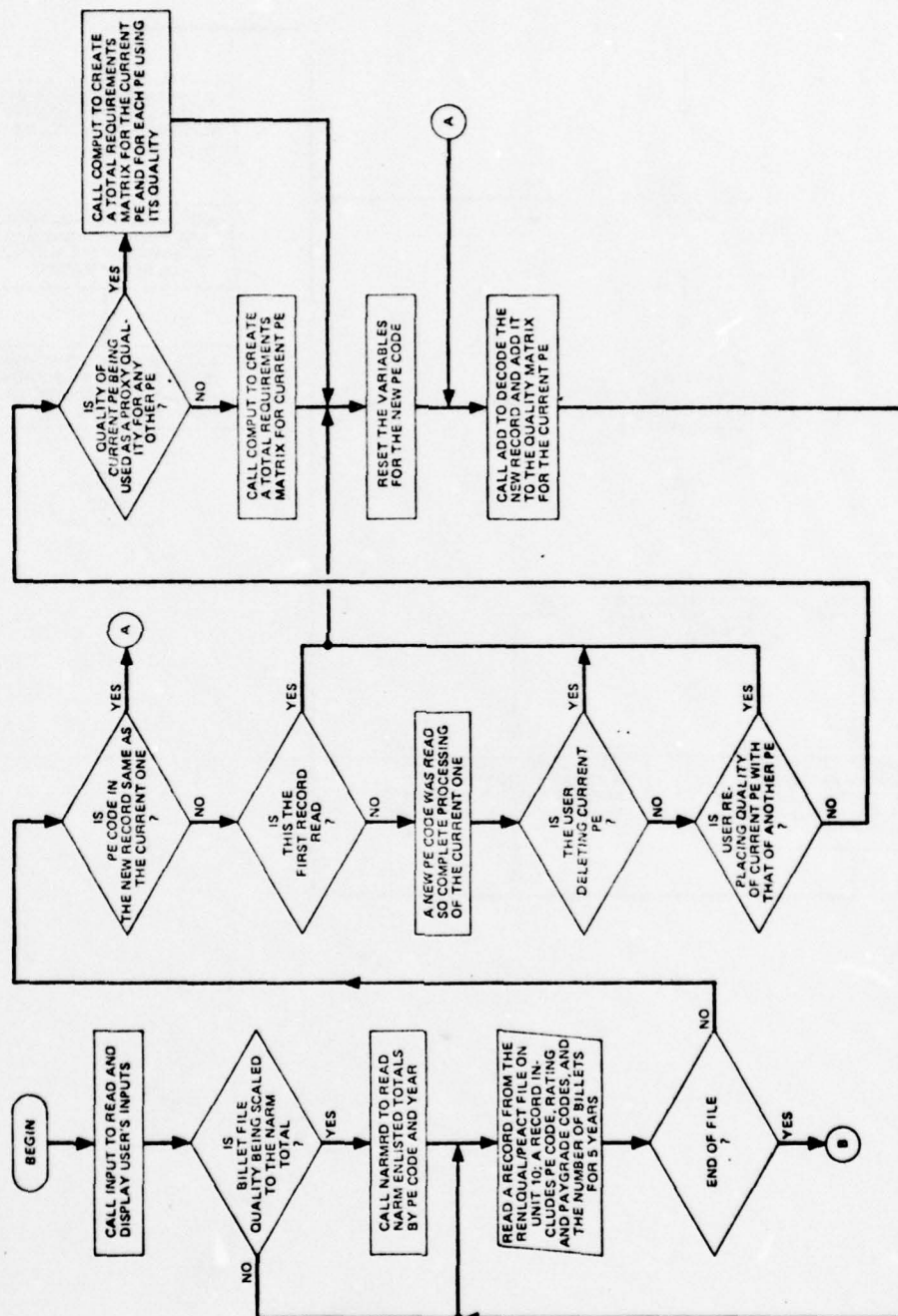


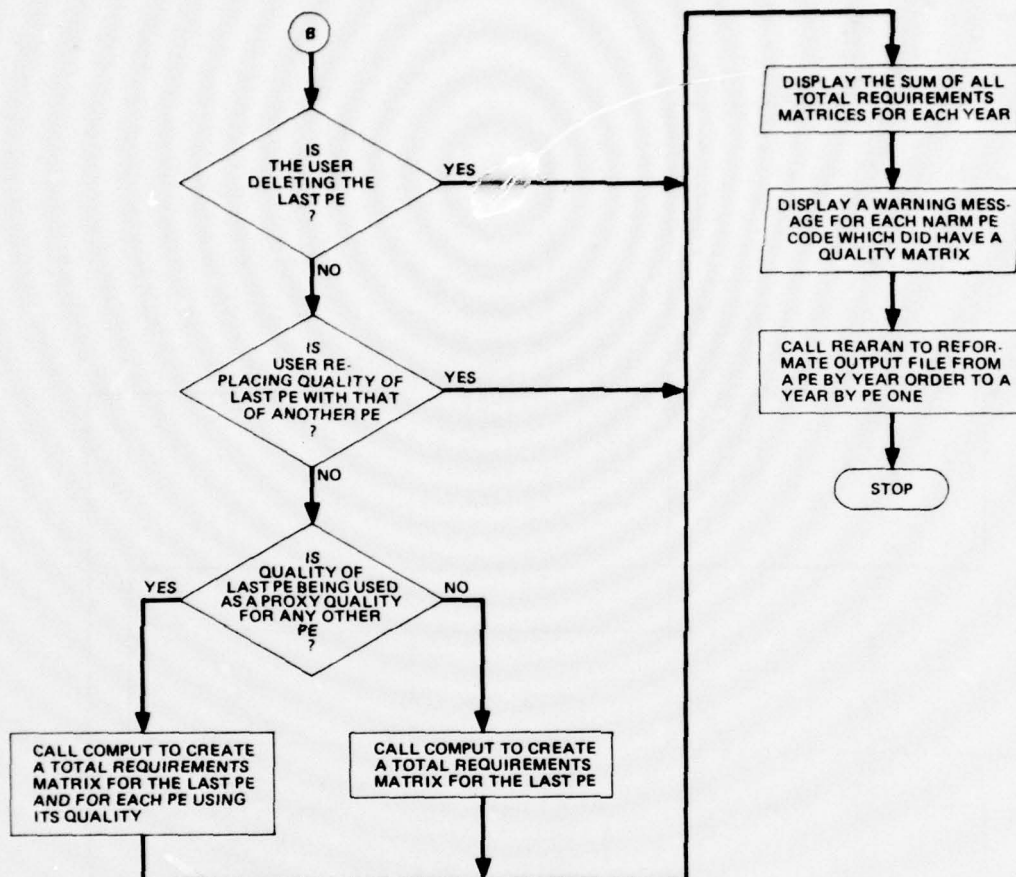
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03100      J=L
03200      5 IF(M(J).IS.1) GO TO 10
03300      J=J-1
03400      IF (J.GT.0) GO TO 5
03500      J=0
03600      10 NSCANX=J
03700      RETURN
          END

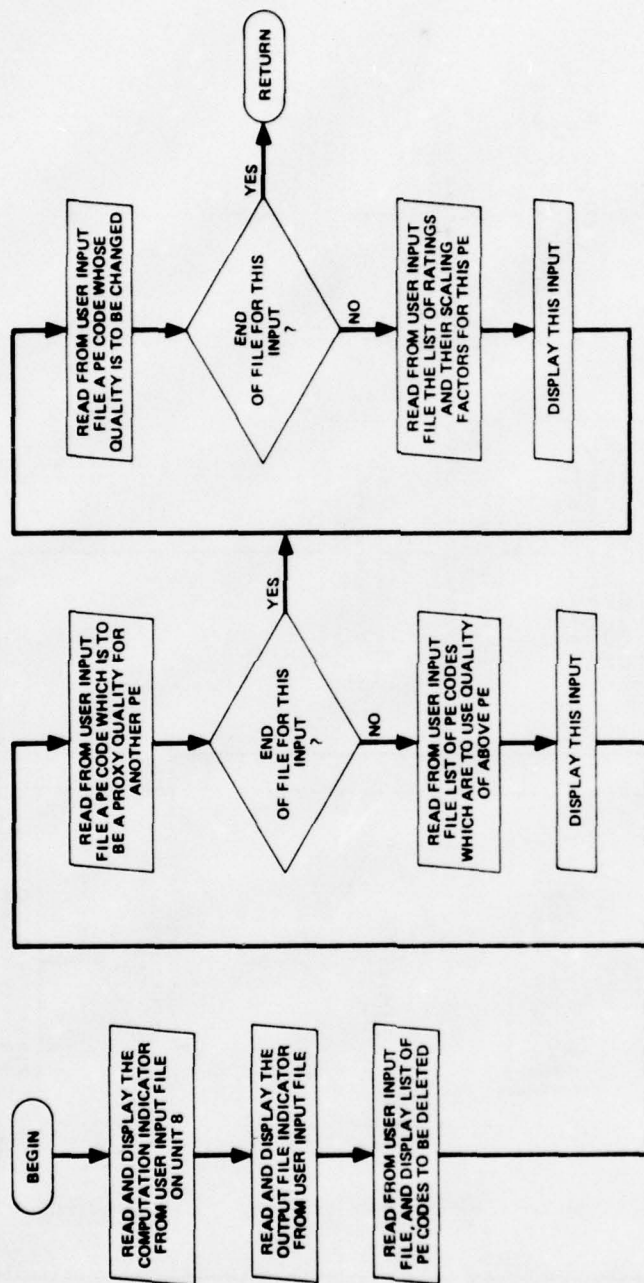
```

Routine TOTAL, main

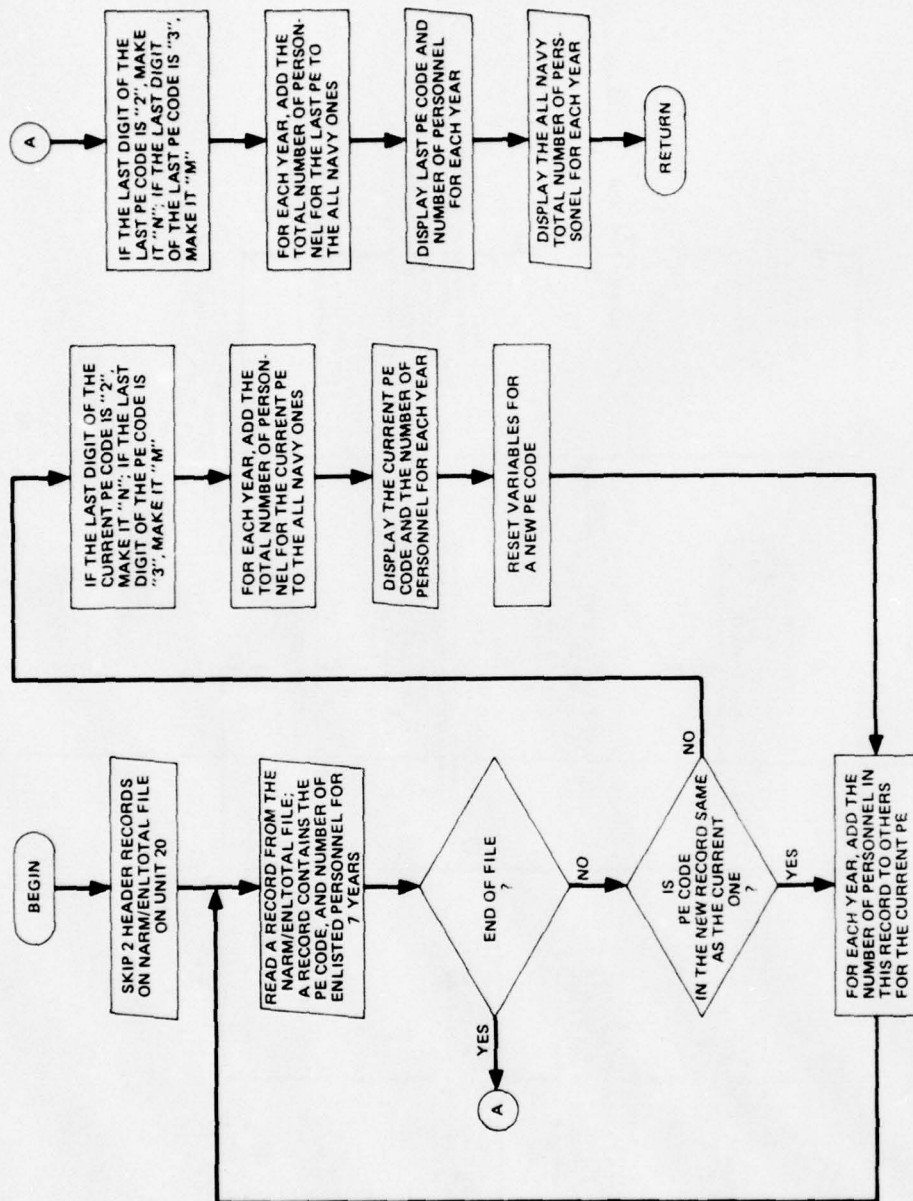




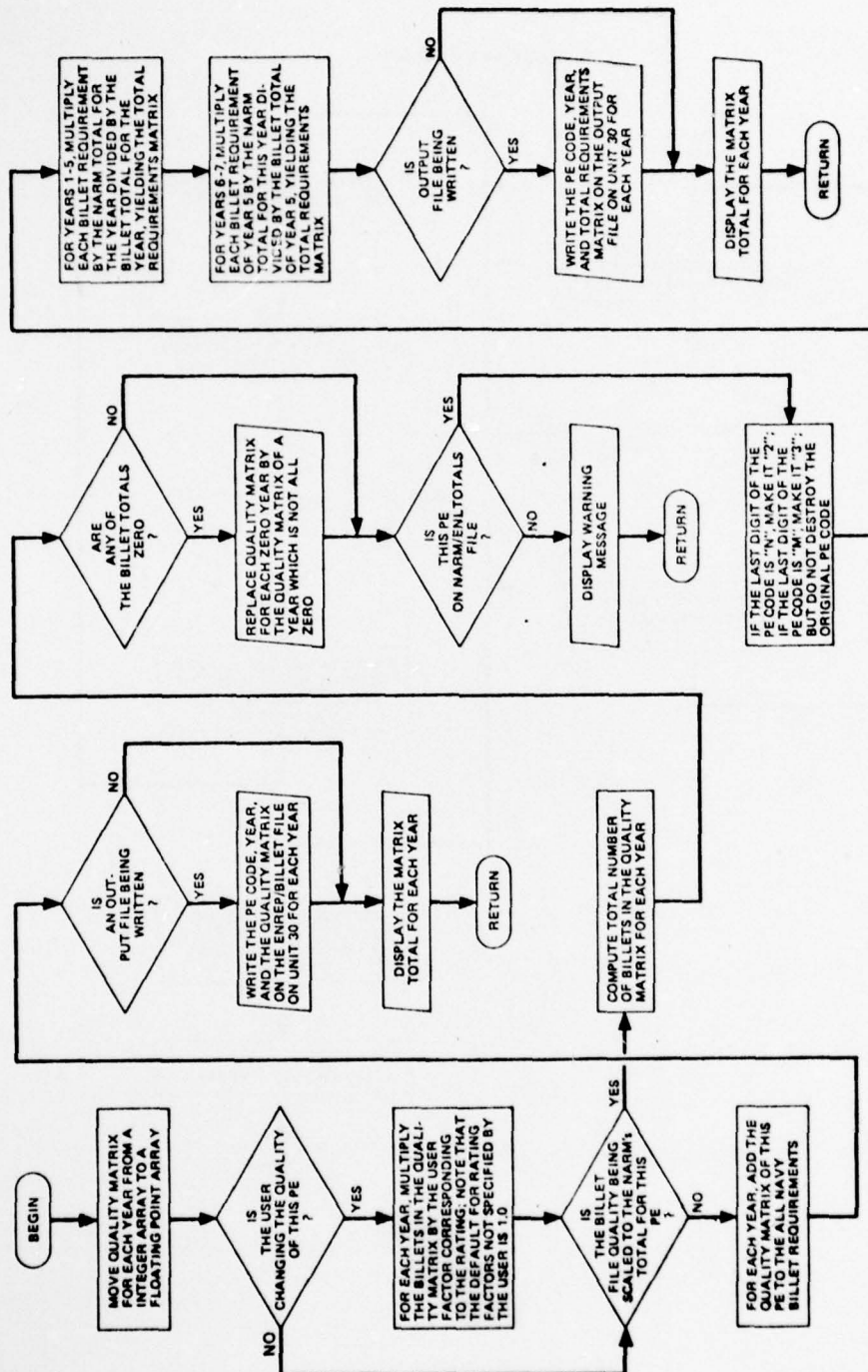
Subroutine INPUT



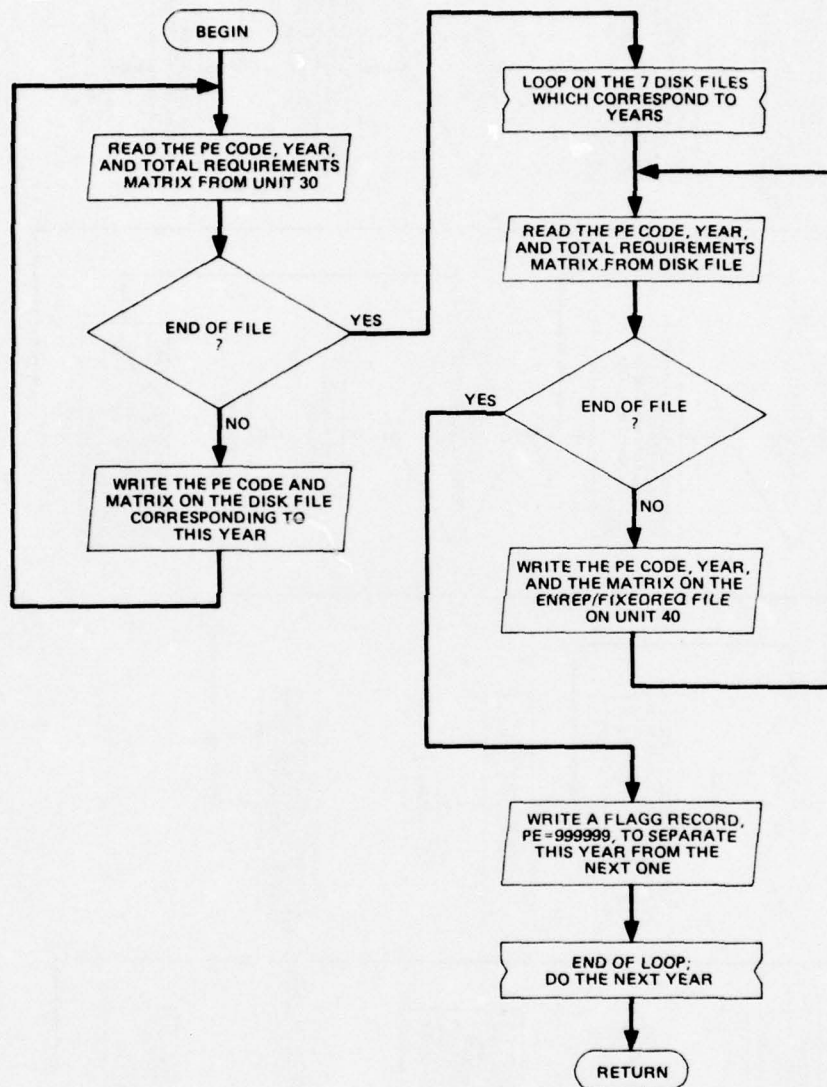
Subroutine NARMRD



Subroutine COMPUT



Subroutine REARAN



ANNEX B-11

PROGRAM PLANNER

```

100 $RESET FREE
200 $SET AUTOBIND
300 $BIND = FROM CNA/LIB/ =
400 FILE 1(TITLE="OCT77NARM/SHIP/ACT",KIND=DISK,FILETYPE=8)
500 FILE 2(TITLE="OCT77NARM/AIR/ACT",KIND=DISK,FILETYPE=8)
600 FILE 3(TITLE="ENREP/ALL",KIND=PETAPE,FILETYPE=8,SERIALNO=671)
700 FILE 4(KIND=DISK,MAXRECSIZE=999,BLOCKSIZE=999,AREASIZE=10)
800 FILE 5(TITLE="ENREP/PLANNER/DATAP",FILETYPE=8,KIND=DISK)
900 FILE 6(TITLE="ENREP/SUPPORT/QUALITY",KIND=PETAPE,FILETYPE=8,SERIALNO=
1000 * 532)
1100 FILE 9(TITLE="ENREP/DICT/SHIP",KIND=DISK,FILETYPE=8)
1200 FILE 10(TITLE="ENREP/DICT/AIR",KIND=DISK,FILETYPE=8)
1300 FILE 11(TITLE="ENREP/FIXEDREQ",KIND=PETAPE,FILETYPE=8,SERIALNO=693)
1400 FILE 12(KIND=DISK,MAXRECSIZE=4,BLOCKSIZE=32)
1500 FILE 13(KIND=DISK,MAXRECSIZE=4,BLOCKSIZE=32)
1600 FILE 14(KIND=PETAPE,MAXRECSIZE=991,BLOCKSIZE=991,SERIALNO=559,
1700 * TITLE="SCRATCH")
1800 FILE 15(KIND=DISK,MAXRECSIZE=999,AREASIZE=10)
1900 FILE 16(KIND=DISK,MAXRECSIZE=992,BLOCKSIZE=992,AREASIZE=10)
2000 FILE 18(TITLE="ENL/INVENTORY/FB74",KIND=PETAPE,FILETYPE=8,SERIALNO=578)
2100 FILE 20(TITLE="ENREP/FINALREQ",MAXRECSIZE=992,BLOCKSIZE=992,SERIALNO=
2200 * 736,KIND=PETAPE)
2300 FILE 21(TITLE="ENREP/PLANNER/STATS",FILETYPE=8,KIND=DISK)
2400 FILE 22(TITLE="ENREP/PROPHET",KIND=DISK,MAXRECSIZE=12,BLOCKSIZE=360,
2500 * PROTECTION=SAVE)
2600 C
2700 C ENREP PROJECTION MODEL - PLANNER
2800 C COMPUTES ENLISTED REQUIREMENTS BY RATING AND PAYGRADE
2900 C OR BY RATING AND LENGTH OF SERVICE (LOS)
3000 C
3100 C INPUTS
3200 C 1 - IUSF - SHIP FORCES BY ACT/PE/PU (FORCES)
3300 C 2 - IUAF - A/C FORCES BY ACT/PE/PU (FORCES)
3400 C 3 - IUUR1 - SHIP AND A/C UNIT REQUIREMENTS BY
3500 C RATING/PAYGRADE FOR EACH ACT/PE/PU,
3600 C YEARS 1-5, (FACTORS)
3700 C 5 - USER'S INPUT
3800 C 6 - PRINTER
3900 C 8 - IUQ9 - SUPPORT QUALITY MATRIX FOR EACH FORCE SUPPORT PE
4000 C BY RATING AND PAYGRADE, YEARS 1-5, (SUPPORT)
4100 C 9 - IUSD - SHIP DICTIONARIES BY ACT/PE/PU
4200 C 10 - IUAD - AIR DICTIONARIES BY ACT/PE/PU
4300 C 11 - IUQ9 - FIXED REQUIREMENTS BY RATING/PAYGRADE FOR EACH
4400 C PE, YEARS 1-6, (PLANNER) - IF PROJECTION MODE
4500 C - TOTAL REQUIREMENTS BY RATING/PAYGRADE FOR EACH
4600 C PE, YEARS 1-6, (TOTAL) - IF INPUT MODE
4700 C 18 - IUIN - ACTUAL ENLISTED INVENTORY BY RATING/PAYGRADE/LOS
4800 C (PERS2X)
4900 C 21 - IUST - IF PROJECTION MODE - STATISTICS COMPUTED WITH THE
5000 C FIXED REQUIREMENTS
5100 C STORAGE
5200 C 4 - IUUR2 - SHIP AND A/C UNIT REQUIREMENTS
5300 C RATING/PAYGRADE FOR EACH ACT/PE/PU, YEARS 6-16
5400 C 12 - IURSF - REFORMATED SHIP FORCES
5500 C 13 - IURAF - REFORMATED A/C FORCES
5600 C 14 - IURR - VARIABLE REQUIREMENTS BY PE
5700 C 15 - IUHA - FORCE REQUIREMENTS BY PE RANDOM ACCESS
5800 C 16 - IU EPA - SUPPORT QUALITATIVE REQUIREMENTS FOR THE EPA
5900 C YEARS (6-16)
6000 C - ALSO FIXED REQUIREMENTS FOR THE EPA YEARS
6100 C (7-16)
6200 C OUTPUT

```



```

12600      *          3, 3,
12700      *          4, 4,
12800      *          5, 5,
12900      *          6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6,
13000      *          6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6,
13100      *          7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7,
13200      *          7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7,
13300      DATA (NAME(1,N),N=1,3) /6HBASE D, 6HPS SUP, 4HPORT/
13400      DATA (NAME(2,N),N=1,3) /6HTRAINI, 6HNG SUP, 4HPORT/
13500      DATA (NAME(3,N),N=1,3) /6HMEDICA, 6HLSUPP, 3HRT/
13600      DATA (NAME(4,N),N=1,3) /6HRECRUI, 6HIE + E, 6HXAMINE/
13700      DATA (NAME(5,N),N=1,3) /6HINDIVI, 6HQUAL S, 6HUPPORT/
13800      DATA (NAME(6,N),N=1,3) /6HSHIP F, 5HRCES, 1H /
13900      DATA (NAME(7,N),N=1,3) /6HA/C FO, 4HRCES, 1H /
14000      DATA (NAME(8,N),N=1,3) /6HON BDA, 2HRD, 1H /
14100      DATA (NAME(9,N),N=1,3) /6HALL NA, 2HVY, 1H /
14200      DATA SHIP/4HSHIP/, AIR/3HAIR/, ALL/3HALL/, FIX/3HFIX/
14300
14400      C          INITIALIZE FILE NUMBERS, BASE YEAR, AND
14500      C          MAX NUMBER OF VARIABLE PE CODES
14600      C          IUSF=1
14700      C          IUAF=2
14800      C          IUUR1=3
14900      C          IUUR2=4
15000      C          IUSQ=8
15100      C          IUSD=9
15200      C          IUAD=10
15300      C          IUXQ=11
15400      C          IURSF=12
15500      C          IUTAF=13
15600      C          IUVR=14
15700      C          IURA=15
15800      C          IUEPA=16
15900      C          IUJUT=20
16000      C          IUST=21
16100      C          IUPH=22
16200      C          IUIN=18
16300      C          IBY=1978
16400      C          MAXPE=100
16500      C          NVPE=95
16600
16700      C          READ THE NUMBER OF YEARS TO DO, COLS: 1-2
16800      C          READ THE OPERATION MODE, COLS: 5-10
16900      C          "INPUT" = INPUT MODE - COMPUTE FIXES REQ.
17000      C          "PROJECT" = PROJECTION MODE - PROJECT ALL NAVY REQ.
17100      READ (5,130) NYEAR, FIXR
17200      IF (FIXR.EQ.5HPROJEC) FIXR=0
17300      IF (FIXR.EQ.5HINPUT) FIXR=1
17400      IF (FIXR.NE.0.AND.FIXR.NE.1) FIXR=0
17500      IF (FIXR.EQ.0) WRITE (6,140)
17600      IF (FIXR.EQ.1) WRITE (6,150)
17700      IF (NYEAR.LE.0) NYEAR=1
17800      IF (NYEAR.GT.16) NYEAR=16
17900      WRITE (6,160) NYEAR
18000
18100      C          READ THE USER INPUTS AND OVERRIDES
18200      C          IF (FIXR.EQ.0) CALL RDINPU
18300
18400      C          READ SHIP ACT/PE/PU DICTIONARY, SHIP FORCES, AND
18500      C          STORE THE ACT/PE/PU CODES AND THEIR FORCES
18600      IND=SHIP
18700      CALL RDRFORC
18800      NACS=NACA
18900      DO 40 I=1,NACS
19000

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19000      NPES(I)=NPEA(I)
19100      K=NPES(I)
19200      DO 40 J=1,K
19300      40 NPUS(I,J)=NPUA(I,J)
19400      CLOSE (IUSU,DISP=KEEP)
19500      CLOSE (IUSF,DISP=KEEP)
19600      REWIND IURSF
19700      C
19800      C      READ A/C ACT/PE/PU DICTIONARY, A/C FORCES, AND
19900      C      STORE THE ACT/PE/PU CODES AND THEIR FORCES
20000      IND=AIN
20100      CALL RUFJRC
20200      CLOSE (IUAD,DISP=KEEP)
20300      CLOSE (IUAF,DISP=KEEP)
20400      REWIND IURAF
20500      C
20600      C      LOOP ON YEARS
20700      DO 100 IYR=1,NYEAR
20800      WRITE (6,190) IYR
20900      C
21000      C      ZERO THE PE FILE ARRAY FOR VARIABLE ONES STORED ON RANDOM
21100      C      ACCESS FILE IURA
21200      ND=0
21300      DO 60 I=1,NAXPE
21400      60 PECDIE(I)=0
21500      C
21600      C      ZERO THE SUPPORT ARRAY
21700      DO 70 I=1,5
21800      70 SUPPOR(I)=0.0
21900      C
22000      C      COMPUTE SHIP FORCE MANPOWER
22100      IYU=SHIP
22200      DO 80 I=1,NACS
22300      N=NPES(I)
22400      DO 80 J=1,N
22500      M=NPUS(I,J)
22600      DO 80 K=1,M
22700      80 READ (IURSF) FORCE(I,J,K),IDACT(I),IDPE(I,J),IDPU(I,J,K)
22800      CALL CPFORC
22900      C
23000      C      COMPUTE A/C FORCE MANPOWER
23100      IND=AIR
23200      DO 90 I=1,NACA
23300      N=NPEA(I)
23400      DO 90 J=1,N
23500      M=NPUA(I,J)
23600      DO 90 K=1,M
23700      90 READ (IURAF) FORCE(I,J,K),IDACT(I),IDPE(I,J),IDPU(I,J,K)
23800      CALL CPFORC
23900      C
24000      C      COMPUTE VARIABLE SUPPORT MANPOWER
24100      CALL CPSUPP
24200      C
24300      C      PRINT VARIABLE REQUIREMENTS
24400      CALL PRINT
24500      C
24600      C      END OF LOOP ON YEARS
24700      100 CONTINUE
24800      C
24900      C      RELEASE FILES
25000      CLOSE (IURK2)
25100      CLOSE (IURSF)
25200      CLOSE (IURAF)
25300      REWIND IUVN

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25400 C
25500 C TEST OPERATION MJOE
25600 IF (FIAR.EQ.1) GO TO 120
25700 C
25800 C IF PROJECTION MODE -
25900 C
26000 C COMPUTE PERCENTAGE CHANGES BETWEEN THE VARIABILITY PROXIES
26100 C IN THE BASE CASE AND IN THIS CASE
26200 IF (NUS.GT.0) CALL CPPRXY
26300 C
26400 C IF DESIRED, COMPUTE DISTRIBUTIONS FOR TRANSLATING QUALITY FROM
26500 C RATING/PAYGRADE TO RATING/LOS
26600 IF (ILOS.EQ.0) CALL TRFLOS(1)
26700 C
26800 C COMPUTE VARIABLE REQUIREMENTS FOR PE CODES THE USER MADE
26900 C VARIABLE AND THEN ADD FIXED REQUIREMENTS TO EACH PE
27000 IND=ALL
27100 CALL ADOFIX
27200 C
27300 C WRITE OUTPUT FOR PROHPFT SYSTEM
27400 CALL PROPHIC(2)
27500 C
27600 C RELEASE FILES
27700 CLOSE (IUVR)
27800 LOCK IURQ
27900 LOCK IUOUT
28000 STOP
28100 C
28200 C IF INPUT MODE -
28300 C COMPUTE FIXED REQUIREMENTS FOR EACH PE CODE
28400 120 IND=FIX
28500 CALL CPFIXR
28600 C
28700 C RELEASE FILES
28800 CLOSE (IUVR)
28900 LOCK IURQ
29000 LOCK IUOUT
29100 STOP
29200 C
29300 130 FORMAT (I2,2X,A6)
29400 140 FORMAT (IHI/6X,"PROJECTION RUN OF THE PLANNER MODEL")
29500 150 FORMAT (IHI/6X,"PLANNER WILL COMPUTE FIXED REQUIREMENTS")
29600 160 FORMAT (IHO,5X,43HENLISTED REQUIREMENTS WILL BE COMPUTED FOR ,I2.6
29700 *H YEARS)
29800 170 FORMAT (7HI YEAR ,I3)
29900 END
30000 C
30100 C*****
30200 C
30300 SUBROUTINE RDI4PU
30400 COMMON /81/ I,J,K,L,M, IND, IYR, FIXR, ILOS, NYEAR,
30500 * WASTE(5135), INPUT(6),
30600 * UPDATE(200,16), UPACT(201), UPPE(201), UPPU(201), VUP,
30700 * JYR(8), FORCE(8)
30800 COMMON /82/ NVFS(5,16), O/F(5,16), FIXPCT(16)
30900 COMMON /83/ DFUPDT(100,10), JDFUP,
31000 * PFUPDT(50,9), LPFUPD(50,20,2), NPFUP
31100 DIMENSION IFUPDT(100,10), JFUPDT(50,9)
31200 EQUIVALENCE (DFUPDT(1),IFUPDT(1)), (PFUPDT(1),JFUPDT(1))
31300 COMMON /84/ NUS, NUSPE(10,11), NUSPX(10,7), VPCUS(10), CURNT(7,16)
31400 COMMON /85/ NAME(9,3)
31500 COMMON /FILES/ IUSF,IUAF,IUUN1,IUUR2,IUSJ,
31600 * IUSD,IUAD,IURQ,IURSF,IURAF,IUVR,IURA,
31700 * IUEPA,IUOUT,IUST,IUIN,IUPH,I9Y

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31300      DIMENSION KY(10), XPC(10)
31900      INTEGER UPACT, UPPE, UPPU
32000      REAL NVFS
32100      C
32200      C      READ THE LOS TRANSFORMATION INDICATOR
32300      C      IF ILOS = "LOS" TRANSFORM THE RATING/PAYGRADE QUALITY TO
32400      C      TO RATING/LOS QUALITY
32500      C      IF ILOS = " " DO NOT MAKE THE TRANSFORMATION
32600      READ (5,1000) ILOS
32700      1000 FORMAT (A3)
32800      IF (ILOS.NE.'LOS') ILOS=1
32900      IF (ILOS.NE.' ') ILOS=0
33000      IF (ILOS.EQ.' ') WRITE (6,7000)
33100      IF (ILOS.NE.' ') WRITE (6,7010)
33200      7000 FORMAT (1H0.5X,"REQUIREMENTS ARE BEING TRANSFORMED FROM RATING/PAY
33300      *GRADE TO RATING/LOS")
33400      7010 FORMAT (1H0.5X,"REQUIREMENTS ARE NOT BEING TRANSFORMED FROM RATING
33500      */PAYGRADE TO RATING/LOS")
33600      C
33700      C      READ THE USER INPUT INDICATORS
33800      C
33900      C      INPUT 1 - FORCES UPDATES BY PU/PE
34000      C      IF INPUT(1)>0, USER IS USING THIS OPTION, AND INPUT(1)
34100      C      IS THE NUMBER OF UPDATES
34200      C      IF INPUT(1)=0, USER IS NOT USING THIS OPTION
34300      C      COLS: 1-4
34400      C
34500      C      2 - DIRECT FACTOR UPDATES BY PU/PE
34600      C      IF INPUT(2)>0, USER IS USING THIS OPTION, AND INPUT(2)
34700      C      IS THE NUMBER OF UPDATES
34800      C      IF INPUT(2)=0, USER IS NOT USING THIS OPTION
34900      C      COLS: 5-8
35000      C
35100      C      3 - PERCENTAGE FACTOR UPDATES BY GROUPS OF PU/PE'S
35200      C      IF INPUT(3)>0, USER IS USING THIS OPTION, AND INPUT(3)
35300      C      IS THE NUMBER OF UPDATES
35400      C      IF INPUT(3)=0, USER IS NOT USING THIS OPTION
35500      C      COLS: 9-12
35600      C
35700      C      4 - CHANGES TO THE NARM PROPORTION OF FIXED/VARIABLE FOR
35800      C      FORCE SUPPORT PE CODES
35900      C      IF INPUT(4)>0, USER IS USING THIS OPTION, AND INPUT(4)
36000      C      IS THE NUMBER OF CHANGES
36100      C      IF INPUT(4)=0, USER IS NOT USING THIS OPTION
36200      C      COLS: 13-16
36300      C
36400      C      5 - USER CREATED SUPPORT AREAS
36500      C      IF INPUT(5)>0, USER IS USING THIS OPTION, AND INPUT(5)
36600      C      IS THE NUMBER OF USER AREAS
36700      C      IF INPUT(5)=0, USER IS NOT USING THIS OPTION
36800      C      COLS: 17-20
36900      C
37000      C      6 - PERCENTAGE CHANGE FOR FIXED REQUIREMENTS YEARS 1-16
37100      C      IF INPUT(6)>0, USER IS USING THIS OPTION
37200      C      IF INPUT(6)=0, USER IS NOT USING THIS OPTION
37300      C      COLS: 21-24
37400      C
37500      READ (5,1010) INPUT
37600      1010 FORMAT (6I4)
37700      C
37800      C      READ FORCE UPDATES:
37900      C      MAX OF 200 FORCE UPDATES
38000      C      FORCES ARE IDENTIFIED BY ACT, PE, PU CODES WHICH ARE
38100      C      IN COLS: 1-4, 7-12, 15-20

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38300 C      NEW FORCES FOR YEARS 1-NYEAR ARE IN COLS:
38300 C      1-5, 6-10, 11-15, 16-20, 21-25, 26-30, 31-35, 36-40,
38400 C      41-45, 46-50, 51-55, 56-60, 61-65, 66-70, 71-75, 76-80
38500 10 IF (INPUT(1).LE.0) GO TO 140
38600 IF (INPUT(1).GT.201) CALL ERROR (6,INPUT(1),0,0,0,0)
38700 DO 60 NUP=1,INPUT(1)
38800 READ (5,90) UPACT(NUP),UPPE(NUP),UPPU(NUP)
38900 READ (5,100) (UPDATE(NUP,K),K=1,NYEAR)
39000 60 CONTINUE
39100 C      PRINT THE FORCE UPDATES
39200 WRITE (6,110)
39300 NUP=INPUT(1)
39400 L=10
39500 M=18Y-1+NYEAR
39600 DO 80 I=1,NUP
39700 L=L+1
39800 IF (L.LE.25) GO TO 70
39900 WRITE (6,120) (K,K=18Y,M)
40000 L=0
40100 70 WRITE (6,130) UPACT(I),UPPE(I),UPPU(I),(UPDATE(I,K),K=1,NYEAR)
40200 80 CONTINUE
40300 90 FORMAT (I4,I4,I9)
40400 100 FORMAT (8(15,F5.0))
40500 110 FORMAT (/6X,69HTHE FOLLOWING UPDATES ARE REPLACING THE NARM OVES I
40600 *N THE INPUT FORCES/6X,45HTHESE UPDATES ARE IN EFFECT FOR THIS RUN
40700 *ONLY)
40800 120 FORMAT (1H ,11X,3HACT,4X,2HPE,6X,2HPU/11X,4HCODE,3X,4HCODE,4X,4HCO
40900 *DE,3X,16I6)
41000 130 FORMAT (1H ,10X,I4,2X,I6,2X,I6,1X,16F6.0)
41100 C
41200 C      READ DIRECT FACTOR UPDATES BY PU/PE
41300 C      MAX OF 100 UPDATES
41400 C      UPDATES ARE IDENTIFIED BY:
41500 C      COLS: 1-6 - PU CODE
41600 C      9-14 - PE CODE
41700 C      17-23 - FIRST YEAR AFFECTED
41800 C      23-26 - LAST YEAR AFFECTED
41900 C      29 - NUMBER OF FACTORS AFFECTED
42000 C      FOR EACH FACTOR AFFECTED, SPECIFY:
42100 C      COLS: 1 - FACTOR NUMBER
42200 C      2-6 - FACTOR VALUE
42300 C      FACTOR NUMBER 1 IS BASE OPS
42400 C      2 IS TRAINING
42500 C      3 IS MEDICAL SUPPORT
42600 C      4 IS RECRUITING + EXAMINING
42700 C      5 IS INDIVIDUAL
42800 C      6 IS ONBOARD MANNING
42900 140 IF (INPUT(2).LE.0) GO TO 180
43000 DO 150 I=1,100
43100 DO 150 J=1,6
43200 150 DFUPDT(I,J)=-100.
43300 DO 150 K=1,INPUT(2)
43400 NDFUP=K
43500 IF (NDFUP.GT.100) CALL ERROR(7,NDFUP,0,0,0,0)
43600 READ (5,200C) (IFUPDT(NDFUP,I),I=7,10), N
43700 2000 FORMAT (16,18,216,13)
43800 DO 170 I=1,N
43900 READ (5,201C) J,X
44000 2010 FORMAT (11,F5.0)
44100 IF (J.LE.0.04.J.GT.6) CALL ERROR(8,IFUPDT(NDFUP,7),IFUPDT(NDFUP,8)
44200 *J,0,0)
44300 IF (J.EQ.0) GO TO 170
44400 DFUPDT(NDFUP,J)=X
44500 170 CONTINUE

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44600      160 CONTINUE
44700      WRITE (6,2020)
44800 2020 FORMAT (1H0,6X,"THE FOLLOWING FACTORS ARE REPLACING THE NARM ONES
44900      •IN THIS RUN ONLY"/14X,2HPU,6X,2HPE,6X,5HYEARS,4X,6HFACTOR,2X,4HNAME
45000      •E)
45100      DO 175 I=1,NFUP
45200      IF (JFUPDT(I,10).LT.JFUPDT(I,9)) JFUPDT(I,10)=
45300      • JFUPDT(I,9)
45400      DO 175 J=1,5
45500      IF (JFUPDT(I,J).LT.0) GO TO 176
45600      WRITE (6,2030) (JFUPDT(I,K),K=7,10),JFUPDT(I,J),(NAME(J,K),K=1,3)
45700 2030 FORMAT (12X,16,2X,16,2X,14,1H-,14,2X,F6.0,2X,3A6)
45800      175 CONTINUE
45900      IF (JFUPDT(I,6).GE.0)
46000      •WRITE (6,2030) (JFUPDT(I,K),K=7,10),JFUPDT(I,6),(NAME(J,K),K=1,3)
46100      JFUPDT(I,9)=JFUPDT(I,9)+1-IBY
46200      JFUPDT(I,10)=JFUPDT(I,10)+1-IBY
46300      176 CONTINUE
46400 C
46500 C      READ THE PERCENTAGE FACTOR UPDATES BY GROUPS OF PU/PE'S
46600 C      MAX OF 50 GROUPS
46700 C      FOR EACH UPDATE, SPECIFY:
46800 C      COLS: 1-4 - FIRST YEAR AFFECTED
46900 C      7-14 - LAST YEAR AFFECTED
47000 C      15-16 - NUMBER OF PU/PE COMBINATIONS IN THE GROUP
47100 C      17 - NUMBER OF FACTORS AFFECTED
47200 C      THEN SPECIFY THE MEMBERS OF THE GROUP, ONE TO A LINE
47300 C      MAX OF 20 PE CODES PER GROUP:
47400 C      COLS: 1-6 - PU CODE
47500 C      7-14 - PE CODE
47600 C      THEN FOR EACH FACTOR AFFECTED, SPECIFY:
47700 C      COLS: 1 - FACTOR NUMBER (SAME AS DIRECT FACTOR UPDATES)
47800 C      2-5 - PERCENTAGE CHANGE
47900      180 IF (INPUT(3).LE.0) GO TO 210
48000      DO 185 I=1,50
48100      DO 185 J=1,6
48200      185 PFUPDT(I,J)=-999999.
48300      DO 190 K=1,INPUT(3)
48400      NPFUP=K
48500      IF (NPFUP.GT.50) CALL ERROR(9,NPFUP,0.0,0.0)
48600      READ (5,3000) (JFUPDT(NPFUP,I),I=7,9), N
48700 3000 FORMAT (14,16,14,13)
48800      IF (JFUPDT(NPFUP,9).LT.20) CALL ERROR (3,JFUPDT(NPFUP,9),0.0,0.0)
48900      DO 200 I=1,JFUPDT(NPFUP,9)
49000      200 READ (5,3010) (LPFUP(NPFUP,I,J),J=1,2)
49100 3010 FORMAT (16,14)
49200      DO 202 I=1,N
49300      READ (5,2010) J,X
49400      IF (J.LE.0.OR.J.GT.6) CALL ERROR(9,LPFUP(NPFUP,1,1),
49500      • LPFUP(NPFUP,1,2),J,0.0)
49600      IF (J.EQ.0) GO TO 202
49700      PFUPDT(NPFUP,J)=X
49800      202 CONTINUE
49900      190 CONTINUE
50000      WRITE (6,3020)
50100 3020 FORMAT (1H0,6X,"THE FOLLOWING FACTORS ARE BEING INCREASED/DECREASE
50200      •D BY THE SPECIFIED PERCENT FOR THIS RUN ONLY"/23X,7HPERCENT/
50300      •14X,5HYEARS,5X,6HCHANGE,3X,6HFACTOR,14X,5HPU/PE)
50400      DO 209 I=1,NPFUP
50500      IF (JFUPDT(I,9).LT.JFUPDT(I,7)) JFUPDT(I,9)=JFUPDT(I,7)
50600      DO 207 J=1,5
50700      IF (JFUPDT(I,J).EQ.-999999.) GO TO 207
50800      WRITE (6,3030) (JFUPDT(I,K),K=7,8),PFUPDT(I,J),(NAME(J,K),K=1,3),
50900      • (LPFUP(I,1,K),K=1,2)

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51000 3030 FORMAT (12X,14,1H-,14,3X,F5.2,3X,3A6,2X,16,1H/,16)
51100 PFUPDT(I,J)=PFUPDT(I,J)*.01
51200 IF (JFUPDT(I,9).LT.2) GO TO 207
51300 DO 206 K=2,JFUPDT(I,9)
51400 WRITE (6,3040) (LPFUPD(I,K,L),L=1,2)
51500 3040 FORMAT (52X,16,1H/,16)
51600 206 CONTINUE
51700 207 CONTINUE
51800 IF (JFUPDT(I,6).NE.-999999.)
51900 *WRITE (6,3030) (JFUPDT(I,K),K=7,8),PFUPDT(I,6), (NAME(8,K),K=1,3),
52000 * (LPFUPD(I,1,K),K=1,2)
52100 IF (JFUPDT(I,6).NE.-999999.)
52200 *PFUPDT(I,6)=PFUPDT(I,6)*.01
52300 JFUPDT(I,7)=JFUPDT(I,7)+1-18Y
52400 JFUPDT(I,8)=JFUPDT(I,6)+1-18Y
52500 IF (JFUPDT(I,7).LT.2) GO TO 209
52600 DO 208 K=2,JFUPDT(I,7)
52700 WRITE (6,3040) (LPFUPD(I,K,L),L=1,2)
52800 208 CONTINUE
52900 209 CONTINUE
53000 C
53100 C READ THE USER CHANGES TO THE NARM FIXED/VARIABLE SPLIT
53200 C FOR EACH CHANGE. SPECIFY:
53300 C COLS: 1 - FORCE SUPPORT AREA NUMBER
53400 C 4-5 - NUMBER OF YEARS AFFECTED
53500 C FORCE SUPPORT AREA NUMBER 1 IS BASE OPS
53600 C 2 IS TRAINING
53700 C 3 IS MEDICAL SUPPORT
53800 C 4 IS RECRUITING + EXAMINING
53900 C 5 IS INDIVIDUAL SUPPORT
54000 C THEN FOR EACH YEAR AFFECTED, SPECIFY:
54100 C COLS: 1-4 - YEAR
54200 C 5-10 - PERCENTAGE CHANGE
54300 210 DO 215 I=1,5
54400 READ (IUST,4050) (NVFS(I,J),J=1,6)
54500 DO 215 J=7,16
54600 215 NVFS(I,J)=NVFS(I,6)
54700 4050 FORMAT (6F6.0)
54800 DO 220 I=1,5
54900 DO 220 J=1,16
55000 220 NVFS(I,J)=NVFS(I,J)
55100 IF (INPUT(4).LE.0) GO TO 260
55200 DO 230 M=1,INPUT(4)
55300 I=M
55400 IF (I.GT.5) CALL ERROR(10,I,0,0,0,0)
55500 READ (5,4000) J,N
55600 4000 FORMAT (11,14)
55700 IF (J.LT.1.OR.J.GT.5) CALL ERROR(11,J,0,0,0,0)
55800 IF (J.EQ.0) GO TO 230
55900 READ (5,4010) (KYR(I),XPC(I),I=1,N)
56000 4010 FORMAT (14,F6.0)
56100 DO 225 K=1,N
56200 L=KYR(K)+1-18Y
56300 IF (L.LT.1.OR.L.GT.NYEAR) CALL ERROR(12,L,J,0,0,0)
56400 IF (L.EQ.0) GO TO 225
56500 UVFS(J,L)=XPC(K)
56600 225 CONTINUE
56700 230 CONTINUE
56800 WRITE (6,4030)
56900 4030 FORMAT (1H0,6X,"THE USER IS CHANGING THE PERCENT THE NARM VARIES I
57000 *HE FOLLOWING SUPPORT AREAS WITH THE FORCES:"/
57100 *39X,4HNARM,5X,4HUSER/11X,12HSUPPORT AREA,9X,4HNEAR, 2(2X,74PERCE
57200 *NT))
57300 DO 250 I=1,5

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57400      DD 240 J=1,16
57500      IF (NVFS(I,J).EQ.OVFS(I,J)) GO TO 240
57600      K=J+18Y-1
57700      WRITE (6,4020) (NAME(I,L),L=1,3),K,NVFS(I,J),OVFS(I,J)
57800      4020 FORMAT (11X,3A6,17,2X,F7.2,2X,F7.2)
57900      GO TO 242
58000      240 CONTINUE
58100      GO TO 250
58200      242 IF (J.GE.16) GO TO 250
58300      DD 244 K= J+1,16
58400      IF (NVFS(I,K).EQ.OVFS(I,K)) GO TO 244
58500      L=K+18Y-1
58600      WRITE (6,4040) L,NVFS(I,K),OVFS(I,K)
58700      4040 FORMAT (31X,15,2X,F7.2,2X,F7.2)
58800      244 CONTINUE
58900      250 CONTINUE
59000      DD 252 I=1,5
59100      DD 252 J=1,16
59200      NVFS(I,J)=NVFS(I,J)*.01
59300      252 OVFS(I,J)=OVFS(I,J)*.01
59400      C
59500      C
59600      C      READ USER SUPPORT AREAS - (A GROUP OF PES WHICH ARE NOT FORCE OR
59700      C      FORCE SUPPORT)
59800      C
59900      C      MAX OF 10 USER SUPPORT AREAS
60000      C      FOR EACH USER SUPPORT AREA, SPECIFY:
60100      C      COLS: 1-2 - NUMBER OF PE CODES IN THE AREA
60200      C      3-4 - PERCENT OF THE AREA WHICH IS TO BE VARIABLE
60300      C      PLANNER ALLOWS FOR THE PROJY TO HAVE UP TO 7 COMPONENTS:
60400      C      10 COMPONENT
60500      C      1 - BASE OPS
60600      C      2 - TRAINING
60700      C      3 - MEDICAL SUPPORT
60800      C      4 - RECRUITING & EXAMINING
60900      C      5 - INDIVIDUAL
61000      C      6 - SHIP FORCES
61100      C      7 - A/C FORCES
61200      C      PLACE THE 10 NUMBER OF THE PROJY COMPONENTS IN COLS:
61300      C      10, 12, 14, 16, 18, 20, 22
61400      C      THEN LIST THE PE CODES WHICH WILL CONSTITUTE THE AREA,
61500      C      MAX OF 10 IN COLS: 1-6, 9-14, 17-22, 25-30, 33-38,
61600      C      41-46, 49-54, 57-62, 65-70, 73-78
61700      260 IF (INPUT(5).LE.0) GO TO 330
61800      NUS=INPUT(5)
61900      DD 320 M=1,NUS
62000      I=M
62100      IF (I.GT.10) CALL ERROR(13,I,0,0,0,0)
62200      READ (5,5000) NUSPE(I,11), VPCUS(I), (NUSPX(I,K),K=1,7)
62300      5000 FORMAT (12,F6.9,7I2)
62400      READ (5,5010) (NUSPE(I,K),K=1,NUSPE(I,11))
62500      5010 FORMAT (16,9I8)
62600      WRITE (6,5030) (NUSPE(I,J),J=1,NUSPE(I,11))
62700      5030 FORMAT (1H,6X,"THE USER IS CREATING A VARIABLE SUPPORT AREA COMPR
62800      *ISING THE FOLLOWING PROGRAM ELEMENTS:"//10X,10(I8))
62900      WRITE (6,5040) VPCUS(I)
63000      5040 FORMAT (1H,6X,"THIS SUPPORT AREA IS",F6.2," PERCENT VARIABLE")
63100      VPCUS(I)=VPCUS(I)*.01
63200      WRITE (6,5050)
63300      5050 FORMAT (1H,6X,"THE SUPPORT AREA WILL VARY WITH THE FOLLOWING PROJ
63400      *IES:")
63500      DD 310 J=1,7
63600      IF (NUSPX(I,J).LE.0) GO TO 320
63700      K=NUSPX(I,J)
63800      310 WRITE (6,5060) (NAME(K,L),L=1,3)

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63800      5060 FORMAT (12X,3A6)
63900      320 CONTINUE
64000      AUS=I
64100      330 CONTINUE
64200      C
64300      C          READ THE PERCENTAGE CHANGES FOR YEARS 1-NYEAR
64400      C          CJS: 1-5, 6-10, 11-15, 16-20, 21-25, 26-30, 31-35, 36-40,
64500      C          41-45, 46-50, 51-55, 56-60, 61-65, 66-70, 71-75, 76-80
64600      C          IF (INPUT(6).EQ.0) GO TO 430
64700      C          READ (5,6000) (FIXPCT(I),I=1,NYEAR)
64800      5000 FORMAT (16F5.0)
64900      WRITE (6,6010)
65000      5010 FORMAT (1H0,5X,"FIXED REQUIREMENTS ARE BEING CHANGED BY THE FOLLOW
* PERCENTAGES:"/11X,4HYEAR,2X,7HPERCENT)
65100      DO 420 I=1,NYEAR
65200      IF (FIXPCT(I).EQ.0.0) GO TO 420
65300      K=(I+13Y-1
65400      WRITE (6,6020) K, FIXPCT(I)
65500      FIXPCT(I)=FIXPCT(I)*.01
65600      420 CONTINUE
65700      6020 FORMAT (11X,I4,F8.2)
65800      430 CONTINUE
65900      RETURN
66000      C
66100      C          END
66200      C
66300      C
66400      C*****
66500      C
66600      SUBROUTINE RDPURC
66700      COMMON /S1/ IR,NR,LIM,XHOLD,IHOLD,IND,IU,X,ILOS,NYEAR,
66800      *      NAC,NPE(60),NPU(67,10),
66900      *      WASTE(661),
67000      *      IFORCE(201,16),ACT(201),PE(201),PU(201),
67100      *      UPDATE(200,16),UPACT(201),UPPE(201),JPPU(201),NUP,
67200      *      NYCODE(191),PUCODE(191),NCODE,
67300      *      I,J,K,L,M,N,I1,I2,I3,J1,J2,J3,IPE,JPE,JJ,N1,N2,N3,N4,
67400      *      D,NL
67500      COMMON /S2/ SHIP,AIR,ALL,FX
67600      COMMON /FILES/ IUSF,IUAF,IUUR1,IUUR2,IUSD,
67700      *      IUSD,IUAD,IURD,IURSF,IURAF,IURV,IURA,
67800      *      IUFA,IUOUT,IUST,IUIN,IUPH,IBY
67900      INTEGER ACT,PE,PUCODE,UPACT,UPPE,UPPU,PU,SHIP,AIR
68000      C
68100      C          INITIALIZE VARIABLES - N1 - 60 ACT CODES
68200      C          N2 - 10 PE CODES PER ACT
68300      C          N3 - 14 PU CODES PER ACT/PE
68400      C          N4 - 200 INPUT RECORDS
68500      IR=0
68600      N1=60
68700      N2=10
68800      N3=14
68900      N4=200
69000      NAC=0
69100      DO 10 I=1,N1
69200      NPE(I)=0
69300      DO 10 J=1,N2
69400      10 NPU(I,J)=0
69500      IU=IUAF
69600      IF (IND.EQ.SHIP) IU=IUSF
69700      C
69800      C          READ THE NAME AND PU CODE FROM THE ACT/PE/PU DICTIONARY
69900      JU=IUAD
70000      IF (IND.EQ.SHIP) JU=IUSD
70100      READ (JU,170) NCODE

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70200      DO 30 I=1,NCODE
70300      30 READ (JU,180) NMCODE(I),PUCODE(I)
70400      C
70500      C      READ THE ENREP FORCES
70600      20 IR=1
70700      IF (IR.GT.N4) CALL ERROR (4,IR,ACT(IR-1),PE(IR-1),PU(IR-1),N4)
70800      READ (IU,240,END=60) ACT(IR),PE(IR),PU(IR),(TFORCE(IR,I),I=1,
70900      *      NYEAR)
71000      C
71100      C      LOOK FOR AN UPDATE
71200      IF (NUP.EQ.0) GO TO 20
71300      I=NUP+1
71400      40 J=-1
71500      I=NSCANX(UPACT(I),J,ACT(IR))
71600      IF (I.EQ.0) GO TO 20
71700      IF (PE(IR).NE.UPPE(I).OR.PU(IR).NE.UPPU(I)) GO TO 40
71800      UPACT(I)=0
71900      DO 50 J=1,NYEAR
72000      50 IFORCE(IR,J)=UPDATE(I,J)
72100      GO TO 20
72200      C
72300      C      ADD ANY NEW FORCE UNITS
72400      60 NR=IR-1
72500      DO 80 J=1,NUP
72600      IF (UPACT(J).EQ.0) GO TO 80
72700      IF (UPACT(J).GT.6000.AND.IND.EQ.SHIP) GO TO 80
72800      NR=NR+1
72900      IF (NR.GT.N4) CALL ERROR(4,NR,ACT(NR-1),PE(NR-1),PU(NR-1),N4)
73000      ACT(NR)=UPACT(J)
73100      PE(NR)=UPPE(J)
73200      PU(NR)=UPPU(J)
73300      UPACT(J)=0.0
73400      DO 70 K=1,NYEAR
73500      70 IFORCE(NR,K)=UPDATE(J,K)
73600      80 CONTINUE
73700      C
73800      C      COUNT NUMBER OF ACTIVITY AND RECORDS PER ACTIVITY
73900      IACT=0
74000      DO 100 I=1,NR
74100      IF (ACT(I).EQ.0) GO TO 100
74200      NAC=IACT+1
74300      IF (NAC.GT.N1) CALL ERROR(17,NAC,N1,0,0,0)
74400      IACT=ACT(I)
74500      100 NPE(NAC)=NPE(NAC)+1
74600      C
74700      C      COUNT THE NUMBER OF PE'S IN EACH ACTIVITY
74800      C      AND WITHIN EACH THE NUMBER OF PU'S
74900      I3=0
75000      DO 150 I=1,NAC
75100      I1=I+1
75200      I3=I1+NPE(I)-1
75300      NPE(I)=0
75400      IPE=0
75500      JPE=0
75600      IF (I1.GT.I3) GO TO 155
75700      DO 152 J=I1,I3
75800      IF (IPE.EQ.PE(J)) GO TO 150
75900      JPE=JPE+1
76000      IF (JPE.GT.N2) CALL ERROR(18,JPE,N2,0,0,0)
76100      IPE=PE(J)
76200      150 NPU(I,JPE)=NPU(I,JPE)+1
76300      152 IF (NPU(I,JPE).GT.N3) CALL ERROR (19,NPU(I,JPE),N3,0,0,0)
76400      155 NPE(I)=JPE
76500      160 CONTINUE

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76600 C
76700 C      FIND NAME FROM DICTIONARY AND WRITE FORCES ON PRINT-OUT
76800      NL=100
76900      DO 200 I=1,NR
77000      J=NSCAVX(PUCODE,NCODE,PU(I))
77100      IF (J.EQ.0) J=NCODE+1
77200      NL=NL+1
77300      IF (NL.LE.25) GO TO 190
77400      L=IBY-1+NYEAR
77500      WRITE (6,220) IND,(K,K=IBY,L)
77600      NL=0
77700      190 WRITE (6,230) NMCODE(J),ACT(I),PE(I),PUC(I),(FORCE(I,K),K=L,NYEAR
77800      *)
77900      200 CONTINUE
78000 C
78100 C      COPY THE FORCES TO TAPE, ORDERED BY YEAR
78200      JU=IURAF
78300      IF (IND.EQ.SHIP) JU=IURSF
78400      DO 215 I=1,NYEAR
78500      DO 215 J=1,NR
78600      215 WRITE (JU) TFORCE(J,I),ACT(J),PE(J),PUC(J)
78700      RETURN
78800 C
78900      170 FORMAT (2I5)
79000      180 FORMAT (14X,A6,2X,I6)
79100      220 FORMAT (1H1/4X,A6,4X,3HACT,3X,2HPE,6X,2HPU/4X,4HNAME,3X,4HCODE,2X,
79200      *4HCODE,4X,4HCODE,3X,16I6/)
79300      230 FORMAT (1H0,2X,A6,2X,I4,2X,I6,2X,I6,1X,16F6.0)
79400      240 FORMAT (14,I6,I6,16F6.0)
79500      END
79600 C
79700 C*****
79800 C
79900      SUBROUTINE CPFRAC
80000      COMMON /B1/ SUPPR(5), IND, IYR, FIXR, ILOS, NYEAR,
80100      *      NACA, NPEA(60), NPUA(60,10),
80200      *      NACS, NPES(60), NPUS(60,10),
80300      *      FORCE(60,10,18), IDACT(60), IDPE(60,10), IDPU(60,10,18)
80400      COMMON /B3/ SHIP, AIR, ALL, FIX
80500      COMMON /B4/ PECOUE(100), LOCPE(100), NO, MAXPE
80600      COMMON /FILES/ IUSF,IUAF,IUR1,IUR2,IUS0,
80700      *      IUSD,IUAD,IURQ,IURSF,IURAF,IURR,IURA,
80800      *      IUEPA,IUOUT,IUST,IUIN,IUPH,IRY
80900      DIMENSION UNITR(110,9), PEREQ(110,9), XC(2), SPFAC(5),
81000      *      NUM(60), NUM(60,10), INC(100)
81100      INTEGER PU, PE, ACT, D, FIXR,
81200      *      PECOUE, SHIP, AIR
81300 C
81400 C      SET UP CONTROL VARIABLES
81500      TOTAL=0.0
81600      IF (IND.NE.SHIP) GO TO 20
81700      NAC=NACS
81800      DO 10 I=1,NACS
81900      NUM(I)=NPES(I)
82000      N=NPES(I)
82100      DO 10 J=1,N
82200      10 NUM(I,J)=NPUS(I,J)
82300      GO TO 40
82400      20 NAC=NACA
82500      DO 30 I=1,NACA
82600      NUM(I)=NPEA(I)
82700      N=NPEA(I)
82800      DO 30 J=1,N
82900      30 NUM(I,J)=NPUA(I,J)

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83000 C
83100 C      READ SUPPORT FACTORS, MATRIX TOTAL, AND THE UNIT REQUIREMENTS
83200 C      MATRIX FOR A FORCE ACT/PE/PU
83300 C      SAVE THE 5TH YEAR INPUT FOR YEARS 6-16
83400 40 IF (IYR.LE.5) READ (IUUR1,270,END=200) PU,PE,ACT,(SPFAC(K),K=1,5),
83500      YRTOTA,((UNITR(K,L),L=1,9),K=1,110)
83600 IF (IYR.EQ.5) WRITE (IUUR2) PU,PE,ACT,SPFAC,YRTOTA,UNITR
83700 IF (IYR.GE.6) READ (IUUR2) PU,PE,ACT,SPFAC,YRTOTA,UNITR
83800 IF (PU.EQ.999999) GO TO 200
83900
84000 C      LOOK FOR THIS ACT/PE/PU IN THE FORCES
84100 N=NAC
84200 50 I=NSCANX(IDACT(1),N,ACT)
84300 IF (I.EQ.0) GO TO 40
84400 M=1
84500 50 DO 60 J=1,NU1(I)
84600 IF (PE.EQ.IDPE(I,J)) GO TO 70
84700 60 CONTINUE
84800 62 N=N+1
84900 IF (N.GE.1) GO TO 50
85000 GO TO 40
85100 70 DO 80 K=1,NU1(I,J)
85200 IF (PU.EQ.IDPU(I,J,K)) GO TO 90
85300 80 CONTINUE
85400 M=M+1
85500 IF (M.GT.NUM(I)) GO TO 62
85600 GO TO 50
85700
85800 C      GOOD MATCH - COMPUTE MANPOWER
85900 C      LOOK FOR THIS PE IN THE FILE
86000 90 KD=0
86100 IF (ND.LT.1) GO TO 100
86200 L=NSCANX(PECODE(1),ND,PE)
86300 IF (L.EQ.0) GO TO 100
86400 ID=L
86500 GO TO 120
86600
86700 C      NEW PE
86800 100 ND=NJ+1
86900 IF (ND.GT.MAXPE) CALL ERROR (2,ND,PE,MAXPE,0,0)
87000 PEODEF(ND)=PE
87100 LDCPE(ND)=ND
87200 ID=ND
87300 KD=1
87400 C      ZERO PEREQ ARRAY
87500 DO 110 M=1,9
87600 DO 110 L=1,110
87700 110 PEREQ(L,M)=0.0
87800
87900 C      IF PROJECTION MODE -
88000 C      ADJUST FOR ANY USER OVERRIDES TO NARM FACTORS
88100 120 IF (FIXR.EQ.0) CALL OVRN (IYR,PU,PE,YRTOTA,SPFAC,UNITR)
88200
88300 C      MULTIPLY BY THE FORCES
88400 DO 130 M=1,9
88500 DO 130 L=1,110
88600 130 UNITR(L,M)=UNITR(L,M)*FORCE(I,J,K)
88700 DO 140 N=1,5
88800 140 SUPPOR(N)=SUPPOR(N)+SPFAC(N)*FORCE(I,J,K)
88900 YRTOTA=YRTOTA+FORCE(I,J,K)
89000 TOTAL=TOTAL+YRTOTA
89100
89200 C      UPDATE THE PE FILE
89300 IF (KD.EQ.0) READ (IURA=ID) PEREQ

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89400      DO 170 N=1,9
89500      DO 170 N=1,110
89600      170 PEREQ(M,N)=PEREQ(M,N)+UNITR(M,N)
89700      WRITE (IURA=10) PEREQ
89800      C      SIGNAL COMPLETION
89900      IDPU(I,J,K)=999999
90000      GO TO 40
90100      C
90200      C      END OF UNIT REQ. MATRICES FOR THIS YEAR
90300      C      CHECK THAT ALL FORCES WERE COMPLETED
90400      C      (SAME RESULTS FOR ALL YEARS)
90500      200 IF (IYR.NE.1) GO TO 215
90600      DO 210 I=1,NAC
90700      N=NUIC(I)
90800      DO 210 J=1,N
90900      M=MUM(I,J)
91000      DO 210 K=1,M
91100      IF (IDPU(I,J,K).NE.999999)
91200      *CALL ERROR (1,IDAC(I),IDPE(I,J),IDPU(I,J,K),0.0)
91300      210 CONTINUE
91400      C
91500      C      CHANGE MARINE CORP INDICATOR FROM 3 TO 1 TO DO A PROPER SORT
91600      215 DO 220 I=1, ND
91700      IMC(I)=0
91800      J=PECODE(I)-(PECODE(I)/10)*10
91900      IF (J.NE.3) GO TO 220
92000      PECOUE(I)=PECODE(I)-2
92100      IMC(I)=2
92200      220 CONTINUE
92300      C      SORT PE FILE ARRAYS BY PE
92400      K=ND+1
92500      DO 235 I=1, ND
92600      LIM=LIM-I
92700      IF (LIM.LT.2) GO TO 235
92800      DO 230 J=2,LIM
92900      IF (PECODE(J-1).LE.PECODE(J)) GO TO 230
93000      IHOLD=PECODE(J-1)
93100      PECOUE(J-1)=PECODE(J)
93200      PECOUE(J)=IHOLD
93300      IHOLD=LOCPE(J-1)
93400      LOCPE(J-1)=LOCPE(J)
93500      LOCPE(J)=IHOLD
93600      IHOLD=IMC(J-1)
93700      IMC(J-1)=IMC(J)
93800      IMC(J)=IHOLD
93900      230 CONTINUE
94000      235 CONTINUE
94100      C      CHANGE MARINE CORP INDICATORS BACK TO 3
94200      DO 240 I=1, ND
94300      240 PECOUE(I)=PECOUE(I)+IMC(I)
94400      C
94500      C      NORMAL END
94600      IF (IYR.EQ.NYEAR.AND.IND.EQ.AIR) LOCK IUUR1
94700      IF (IYR.GE.5.AND.IND.EQ.AIR) REWIND IUUR2
94800      RETURN
94900      C
95000      270 FORMAT (3I6,6F6.1,990F6.1)
95100      END
95200      C
95300      C*****
95400      C
95500      SUBROUTINE CPSUPP
95600      COMMON /S1/ SUPPOR(5), IND, IYR, FIXR, ILOS, NYEAR,
95700      *      NACA, NPEA(60), NPUA(60,13),

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95300      *      NACS, NPFS(60), NPUS(60,10),
95400      *      NAVREQ(111,10),
95500      *      VARREQ(111,10,7),
95600      *      UNITR(110,9), PEREQ(110,9), Y(2),
95700      *      TOTAL(5), NPE(5), SCALE(5), CPE(5), ADJ(5)
95800      COMMON /S4/ PECOUE(100), LOCPE(100), NO, MAXPE
95900      COMMON /S0/ VSPT(95), KEY(95), NVPE
96000      COMMON /S8/ NAME(9,3)
96100      COMMON /S4/ NUS, NUSPE(10,11), NUSPX(10,7), VPCUS(10), CURNT(7,16)
96200      COMMON /S2/ NVFS(5,16), OVFS(5,16)
96300      COMMON /FILES/ IUSF,IUAF,IUUR1,IUUR2,IUSQ,
96400      *      IUSQ,IUAD,IURQ,IURSF,IURAF,IUVR,IURA,
96500      *      IJEP,IUOUT,IUST,IUIN,IUPH,IBY
96600      REAL NVFS, NAVREQ
96700      INTEGER PECOUE, PE, E, CPE, FIXR, VSPT
96800
96900      C      SET UP VARIABLES FOR THIS YEAR
97000      C      - READ FILE IUSQ FOR YEARS 1-5, FILE IUEPA FOR YEARS 6-16
97100      C      - MANPOWER TOTAL PER AREA - TOTAL
97200      C      - NUMBER OF PE'S PER AREA - NPE
97300      C      - CHECK ON NUMBER OF PE'S PER AREA - CPE
97400      C      - FIXED/VARIABLE ADJUSTMENT PER AREA (IF PROJECTION MODE)
97500      C      - ADJ
97600      C      - SCALING CONSTANT PER AREA -SCALE
97700      E=IUSQ
97800      IF (IYR.GE.6) E=IUEPA
97900      READ (E,230) (TOTAL(I),NPE(I),I=1,5)
98000      IF (IYR.EQ.5) WRITE (IUEPA,230)
98100      *      (TOTAL(I),NPE(I),I=1,5)
98200      DO 20 I=1,5
98300      CPE(I)=0
98400      SCALE(I)=0.0
98500      IF (TOTAL(I).GT.0.0) SCALE(I)=SUPPORT(I)/TOTAL(I)
98600      ADJ(I)=0.0
98700      IF (FIXR.EQ.0.AND.NVFS(I,IYR).NE.OVFS(I,IYR)) ADJ(I)=((OVFS(I,IYR)
98800      *      -NVFS(I,IYR))/NVFS(I,IYR))
98900      X=ADJ(I)*100.
99000      IF (ADJ(I).NE.0.0) WRITE (6,25) (NAME(I,K),K=1,3), X
99100      25 FORMAT ("0 VARIABLE REQUIREMENTS FOR FORCE SUPPORT AREA ",3A6,
99200      *      " IS BEING CHANGED ",F8.2," PERCENT")
99300      20 CONTINUE
99400      C
99500      C      ZERO ALL NAVY VARIABLE REQUIREMENTS ARRAY
99600      C      AND ZERO THE TOTAL REQ ARRAY FOR PROXIES
99700      DO 30 J=1,10
99800      DO 30 I=1,111
99900      30 NAVREQ(I,J)=0.0
100000      DO 32 K=1,7
100100      DO 32 J=1,10
100200      DO 32 I=1,111
100300      32 VARREQ(I,J,K)=0.0
100400      DO 35 I=1,7
100500      35 CURNT(I,IYR)=0.0
100600      C
100700      C      READ THE SUPPORT QUALITY MATRIX
100800      ISKIP=0
100900      IF (NO.LE.0) ISKIP=1
101000      ID=1
101100      40 READ (E,240,END=170) PE,JD,((UNITR(L,M),M=1,9),L=1,110)
101200      IF (IYR.EQ.5) WRITE (IUEPA,240) PE,JD,((UNITR(L,M),M=1,9),L=1,110)
101300      IF (PE.EQ.999999) GO TO 170
101400      CPE(JD)=CPE(JD)+1
101500      C
101600      C      COMPARE THE SUPPORT PE TO THE FORCE PE
101700

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102200      IF (ISKIP.EQ.1) GO TO 70
102300      60 IF (PE=PECODE(10)) 70,90,130
102400      C
102500      C      WRITE SUPPORT PE ON DISK - NO FORCES IN THIS PE
102600      70 DO 80 N=1,9
102700      DO 80 M=1,110
102800      X=UNITR(M,N)*SCALE(JD)
102900      PEREQ(M,N)=X*X*ADJ(JD)
103000      80 NAVREQ(M,N)=NAVREQ(M,N)+PEREQ(M,N)
103100      J=NSCANX(VSPT(1),NVPE,PE)
103200      IF (J.EQ.0) GO TO 85
103300      J=KEY(J)
103400      DO 82 M=1,9
103500      DO 82 N=1,110
103600      82 VARREQ(M,N,J)=VARREQ(M,N,J)+PEREQ(M,N)
103700      45 WRITE (IUVR) PE,PEREQ
103800      GO TO 40
103900      C
104000      C      REQ. IN THIS PE FROM FORCES AND SUPPORT
104100      C      COMBINE PE'S AND WRITE ON DISK
104200      90 KD=LOCPE(ID)
104300      READ (IURA=KD) PEREQ
104400      DO 120 N=1,9
104500      DO 120 M=1,110
104600      X=UNITR(M,N)*SCALE(JD)
104700      PEREQ(M,N)=PEREQ(M,N)+X*X*ADJ(JD)
104800      120 NAVREQ(M,N)=NAVREQ(M,N)+PEREQ(M,N)
104900      J=NSCANX(VSPT(1),NVPE,PE)
105000      IF (J.EQ.0) GO TO 125
105100      J=KEY(J)
105200      DO 123 M=1,9
105300      DO 123 N=1,110
105400      123 VARREQ(M,N,J)=VARREQ(M,N,J)+PEREQ(M,N)
105500      125 WRITE (IUVR) PE,PEREQ
105600      ID=ID+1
105700      IF (ID.GT.ND) ISKIP=1
105800      GO TO 40
105900      C
106000      C      COPY FORCE PE TO DISK - NO SUPPORT REQ. IN THIS PE
106100      130 KD=LOCPE(ID)
106200      READ (IURA=KD) PEREQ
106300      WRITE (IUVR) PECOPE(ID),PEREQ
106400      DO 160 N=1,9
106500      DO 160 M=1,110
106600      160 NAVREQ(M,N)=NAVREQ(M,N)+PEREQ(M,N)
106700      J=NSCANX(VSPT(1),NVPE,PECODE(ID))
106800      IF (J.EQ.0) GO TO 165
106900      J=KEY(J)
107000      DO 163 M=1,9
107100      DO 163 N=1,110
107200      163 VARREQ(M,N,J)=VARREQ(M,N,J)+PEREQ(M,N)
107300      165 ID=ID+1
107400      IF (ID.LE.ND) GO TO 60
107500      ISKIP=1
107600      GO TO 70
107700      C
107800      C      END OF FILE ON SUPPORT TAPE
107900      C      COPY REST OF FORCE PE'S TO DISK IF NECCESARY
108000      170 IF (ID.GT.ND) GO TO 210
108100      DO 205 K=ID, ND
108200      KD=LOCPE(K)
108300      READ (IURA=KD) PEREQ
108400      WRITE (IUVR) PECOPE(K),PEREQ
108500      DO 200 N=1,9

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104600      JD 200 M=1.110
104700      200 NAVREQ(M,N)=NAVREQ(M,N)+PEREQ(M,N)
104800      J=NSCANX(VSPI(1),NVPE,PE)
104900      IF (J.EQ.0) GO TO 205
105000      J=KEY(J)
105100      DO 204 N=1.9
105200      DO 204 M=1.110
105300      204 VARREQ(M,N,J)=VARREQ(M,N,J)+PEREQ(M,N)
105400      205 CONTINUE
105500      C
105600      C      CHECK THAT ALL PE'S WERE READ
105700      210 DO 220 I=1.5
105800      IF (CPE(I).NE.NPE(I)) CALL ERROR (5,I,CPE(I),NPE(I),0.0)
105900      220 CONTINUE
106000      C
106100      C      NORMAL END
106200      C      SUM TO GET TOTALS IN THE 3 FORCE SUPPORT AREAS AND IN SHIP + A/C
106300      DO 235 I=1.7
106400      DO 250 J=1.9
106500      DO 250 K=1.110
106600      250 PEREQ(X,J)=VARREQ(K,J,I)
106700      CALL SUM (PEREQ,X)
106800      255 CURNT(I,IYR)=X
106900      IF (IYR.EQ.NYEAR) LOCK IUSQ
107000      IF (IYR.GE.5) REWIND IUPEA
107100      PE=999999
107200      WRITE (IUVR) PE,PEREQ
107300      RETURN
107400      230 FORMAT (5(F6.0,I6))
107500      240 FORMAT (2I6,990F6.0)
107600      END
107700      C
107800      C*****
107900      C
108000      SUBROUTINE PRINT
108100      COMMON /41/ I,J,K,IU,JYR, IND, IYR, FIXR, ILOS, NYEAR,
108200      *      WASTE1(661),
108300      *      WASTE2(661),
108400      *      NAVREQ(111,10),
108500      *      VARREQ(111,10,7),
108600      *      WASTE4(110,9,31),
108700      *      RTPERC(110)
108800      COMMON /48/ SHIP, AIR, ALL, FIX
108900      COMMON /4C/ IRATE(110), JRATE(110)
109000      COMMON /3E/ NAME(9,3)
109100      COMMON /FILES/ IUSF,IUAF,IUUR1,IUUR2,IUSQ,
109200      *      IUSD,IUAD,IURQ,IURSF,IURAF,IUVR,IURA,
109300      *      IUPEA,IUOUT,IUST,IUIN,IUPH,I8Y
109400      DIMENSION LABE(3,2)
109500      REAL NAVREQ
109600      INTEGER FIXR, ALL, FIX
109700      DATA LABE/ 6HVIAR, 6HTOTAL, 6HFIXED,
109800      *      2HLE, 2H, 2H /
109900      C
110000      C      INITIALIZE VARIABLES
110100      JYR=IYR+I8Y-1
110200      JND=1
110300      IF (IND.EQ.ALL) JND=2
110400      IF (IND.EQ.FIX) JND=3
110500      C
110600      C      PRINT REQ. FOR THE FORCES AND FORCE SUPPORT AREAS, SEPARATELY
110700      DO 250 K=1.7
110800      WRITE (6,90) (LABE(JND,I),I=1.2),JYR
110900      WRITE (6,200) (NAME(K,J),J=1.3)

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115000      200 FORMAT (40X,3A6/)
115100      WRITE (6,100)
115200      DO 230 I=1,11
115300      DO 220 J=1,9
115400      220 VARREQ(I,10,K)=VARREQ(I,10,K)+VARREQ(I,J,K)
115500      WRITE (6,110) IRATE(I),JRATE(I),(VARREQ(I,J,K),J=1,10)
115600      230 CONTINUE
115700      DO 240 J=1,10
115800      DO 240 I=1,110
115900      240 VARREQ(111,J,K)=VARREQ(111,J,K)+VARREQ(I,J,K)
116000      WRITE (6,120) (VARREQ(111,I,K),I=1,10)
116100      250 CONTINUE
116200      C
116300      C      WRITE ALL NAVY TOTALS
116400      WRITE (6,90) (LABLE(JND,I),I=1,2),JYR
116500      WRITE (6,200) (NAME(Y,J),J=1,3)
116600      WRITE (6,100)
116700      TOTAL=0.0
116800      DO 20 I=1,110
116900      DO 10 J=1,9
117000      TOTAL=TOTAL+NAVREQ(I,J)
117100      10 NAVREQ(I,10)=NAVREQ(I,10)+NAVREQ(I,J)
117200      WRITE (6,110) IRATE(I),JRATE(I),(NAVREQ(I,J),J=1,10)
117300      20 CONTINUE
117400      DO 30 J=1,10
117500      DO 30 I=1,110
117600      30 NAVREQ(111,J)=NAVREQ(111,J)+NAVREQ(I,J)
117700      WRITE (6,120) (NAVREQ(111,I),I=1,10)
117800      C
117900      C      PRINT PERCENTAGES
118000      WRITE (6,90) (LABLE(JND,I),I=1,2),JYR
118100      WRITE (6,130)
118200      DO 40 I=1,110
118300      40 RTPERC(I)=(NAVREQ(I,10)/TOTAL)*100.
118400      DO 50 I=1,36
118500      J=I+37
118600      K=I+74
118700      WRITE (6,140) IRATE(I),NAVREQ(I,10),RTPERC(I),IRATE(J),NAVREQ(J,1
118800      *0),RTPERC(J),IRATE(K),NAVREQ(K,10),RTPERC(K)
118900      50 CONTINUE
119000      WRITE (6,140) IRATE(37),NAVREQ(37,10),RTPERC(37),IRATE(74),NAVREQ
119100      *(74,10),RTPERC(74)
119200      WRITE (6,90) (LABLE(JND,I),I=1,2),JYR
119300      WRITE (6,150)
119400      DO 60 I=1,9
119500      PGPERC=(NAVREQ(111,I)/TOTAL)*100.
119600      J=10-I
119700      WRITE (6,160) J,NAVREQ(111,I),PGPERC
119800      60 CONTINUE
119900      WRITE (6,170)
120000      STOTAL=0.0
120100      DO 70 I=1,6
120200      70 STOTAL=STOTAL+NAVREQ(111,I)
120300      PGPERC=(STOTAL/TOTAL)*100.
120400      WRITE (6,180) STOTAL,PGPERC
120500      STOTAL=0.0
120600      DO 80 I=1,9
120700      80 STOTAL=STOTAL+NAVREQ(111,I)
120800      PGPERC=(STOTAL/TOTAL)*100.
120900      WRITE (6,190) STOTAL,PGPERC
121000      RETURN
121100      C
121200      90 FORMAT (1H1//40X,A6,A2,29H ENLISTED REQUIREMENTS FOR FY,14/)
121300      100 FORMAT (1H0,61X,8HPAYGRADE,45X,6HRATING/9X,6HRATING,5X,7X,3HE-9,7X

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121400      * 3HE=3.7X, 3HE=7.7X, 3HE=6.7X, 3HE=5.7X, 3HE=4.7X, 3HE=3.7X, 3HE=2.7X, 3H
121500      *E=1.5X, 5HTOTAL//)
121600      110 FORMAT (7X,A3,1X,A4,5X,10F10.0)
121700      120 FORMAT (7X,8HPAYGRADE/10X,5HTOTAL,5X,10F10.0)
121800      130 FORMAT (53X,13HSUMMARY TABLE///3(7X,6HRRATING,4X,5HTOTAL,4X,74PERCE
121900      *NT,7X)//)
122000      140 FORMAT (3(9X,A3,4X,F6.0,5X,F5.2,8X))
122100      150 FORMAT (50X,13HSUMMARY TABLE///42X,8HPAYGRADE,3X,5HTOTAL,5X,74PERC
122200      *ENT//)
122300      160 FORMAT (1H0,44X,2HE=,11,2X,F8.0,5X,F5.2)
122400      170 FORMAT (//)
122500      180 FORMAT (1H0,43X,4HP,0.,2X,F8.0,5X,F5.2)
122600      190 FORMAT (1H0,41X,8HNON P.D.,F8.0,5X,F5.2)
122700      END
122800      C
122900      C.....
123000      C
123100      SUBROUTINE CPPRXY
123200      COMMON /81/ WASTE1(5), IND,IYR, FIXR, ILJS,NYEAR,
123300      * PRXPC(7,16,2), WASTE2(437), WASTE3(661),
123400      * WASTE4(111,10), BASE(7), VREQ(110,9)
123500      COMMON /FILES/ IUSF,IUAF,IUUR1,IUUR2,IUSJ,
123600      * IUSU,IUAD,IURQ,IURSF,IURAF,IUVR,IUPA,
123700      * IUEPA,IUOUT,IUST,IUIN,IUPH,IBY
123800      COMMON /14/ NUS, NUSPE(10,11), NUSPX(10,7), VPCUS(10), CURNT(7,16)
123900      C
124000      DO 50 IYR=1,NYEAR
124100      C
124200      C      READ TOTALS FOR BASE CASE
124300      READ (IUST,1000) BASE
124400      1000 FORMAT (7F9.0)
124500      C
124600      C      COMPUTE PERCENTAGES
124700      DO 40 I=1,7
124800      PRXPC(I,IYR,1)=(CURNT(I,IYR)-BASE(I))/BASE(I)
124900      40 PRXPC(I,IYR,2)=BASE(I)
125000      C
125100      50 CONTINUE
125200      RETURN
125300      END
125400      C
125500      C.....
125600      C
125700      SUBROUTINE CMUSER(IPE,VREQ)
125800      COMMON /81/ WASTE1(5), IND,IYR, FIXR, ILJS,NYEAR,
125900      * PRXPC(7,16,2), WASTE2(437), WASTE3(661),
126000      * WASTE4(111,10), WASTE5(111,10,7), WASTE6(110,9,31),
126100      * FREQ(110,9)
126200      COMMON /84/ NUS, NUSPE(10,11), NUSPX(10,7), VPCUS(10), CURNT(7,16)
126300      DIMENSION VREQ(110,9)
126400      C
126500      C      MAKE THE VARIABLE ARRAY ZERO, NO MATTER WHAT HAPPENS
126600      DO 5 I=1,9
126700      DO 5 J=1,110
126800      5 VREQ(J,I)=0.0
126900      C
127000      C      IS THIS PE TO BE MADE VARIABLE (FIXED IN THE NARY)?
127100      C      IF SO, THEN ADJUST IT BY THE USER PERCENTS AND PROXIES
127200      C
127300      DO 10 I=1,10
127400      DO 10 J=1,NUS
127500      IF (IPE.EQ.NUSPE(J,I)) GO TO 15
127600      10 CONTINUE
127700      RETURN

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127100 C
127900 C      COMPUTE THE PERCENTAGE CHANGE
128000 15 X=VPCUS(J)*100.
128100 WRITE (6,100) NUSPE(J,I), X
128200 100 FORMAT ("O PE ",I6," IS BEING MADE ",F8.2," PERCENT VARIABLE")
128300 X=0
128400 PC=0
128500 DO 20 K=1,7
128600 L=NUSPX(J,K)
128700 IF (L.EQ.0) GO TO 30
128800 PC=PC+PRXPC(L,IYR,1)+PRXPC(L,IYR,2)
128900 20 X=X+PRXPC(L,IYR,2)
129000 30 PC=(PC/X)
129100 X=PC*100.
129200 WRITE (6,110) X
129300 110 FORMAT (" ITS PROXY CHANGED ",F8.2," PERCENT")
129400 C
129500 C      FIND THE NARN TOTAL ENDSTRENGTH
129600 CALL SUM (FREQ,XT)
129700 WRITE (6,120) XT
129800 120 FORMAT(" TOTAL ENDSTRENGTH IS ",F12.2)
129900 C      FIND THE PERCENT VARIABLE, AS DETERMINED BY THE USER
130000 XV=XT/VPCUS(J)
130100 WRITE (6,130) XV
130200 130 FORMAT (" BASE CASE VARIABLE ENDSTRENGTH IS ",F12.2)
130300 C      COMPUTE THE NEW FIXED ENDSTRENGTH
130400 XF=XT-XV
130500 WRITE (6,140) XF
130600 140 FORMAT (" FIXED ENDSTRENGTH IS ",F12.2)
130700 C      MODIFY THE VARIABLE ENDSTRENGTH TO REFLECT THIS RUN
130800 XV=XI/(XV+PC)
130900 WRITE (6,150) XV
131000 150 FORMAT (" CURRENT CASE VARIABLE ENDSTRENGTH IS ",F12.2)
131100 C      USE THE QUALITY OF THE TOTAL REQ. AND SCALE IT TO THE NEW
131200 C      VARIABLE ENDSTRENGTH
131300 SCALE=XV/XI
131400 DO 40 J=1,9
131500 DO 40 K=1,110
131600 40 FREQ(K,J)=FREQ(K,J)*SCALE
131700 C      USE THE QUALITY OF THE TOTAL REQ. AND SCALE IT TO THE FIXED
131800 C      ENDSTRENGTH
131900 SCALE=XF/XI
132000 DO 50 J=1,9
132100 DO 50 K=1,110
132200 50 FREQ(K,J)=FREQ(K,J)*SCALE
132300 C
132400 RETURN
132500 END
132600 C
132700 C*****
132800 C
132900 SUBROUTINE SUM (REQ,X)
133000 DIMENSION REQ(110,9)
133100 X=0.0
133200 DO 10 J=1,9
133300 DO 10 I=1,110
133400 10 X=X+REQ(I,J)
133500 RETURN
133600 END
133700 C
133800 C*****
133900 C
134000 SUBROUTINE CPFIXR
134100 C

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134200 C      COMPUTES FIXED REQUIREMENTS BY PE BY SUBTRACTING THE VARIABLE
134300 C      ONES JUST COMPUTED FROM THE NARM'S TOTAL ONES
134400 C
134500      COMMON /A1/ WASTE(5), IND, IYR, FIXR, ILOS, NYEAR,
134600      *      WASTE1(661), WASTE2(661),
134700      *      NAVREQ(111,10),
134800      *      FIXREQ(111,10,7),
134900      *      REPORT(500,17),
135000      *      VREQ(110,9), TREQ(110,9),
135100      *      PRUXPC(5,16), PRXTOT(7,16), TOTAL(7)
135200      COMMON /FILES/ IUSF, IUAF, IUUR1, IUUR2, IUSQ,
135300      *      IUSD, IUAD, IURQ, IURSF, IURAF, IURV, IURA,
135400      *      IUEPA, IUOUT, IUST, IUIN, IUPH, IBY
135500      COMMON /A0/ VSPT(95), KEY(95), NVPE
135600      INTEGER SKIP
135700      REAL NAVREQ
135800 C
135900      MPE=300
136000      ILV=(BY+NYEAR-1
136100      DO 2 I=1,16
136200      DO 2 J=1,7
136300      2 PRXTOT(I,J)=0.0
136400 C
136500 C      LOOP ON YEARS
136600      DO 1/4 IYR=1,NYEAR
136700      DO 4 I=1,MPE
136800      4 REPORT(I,IYR)=0.0
136900      DO 6 I=1,7
137000      TOTAL(I)=0.0
137100      DO 6 K=1,10
137200      DO 6 J=1,111
137300      6 FIXREQ(J,K,I)=0.0
137400      MPE=0
137500      WRITE (6,180) IYR
137600      SKIP=0
137700      DO 10 J=1,10
137800      DO 10 I=1,111
137900      10 NAVREQ(I,J)=0.0
138000 C
138100 C      READ THE VARIABLE REQUIREMENTS
138200      20 READ (IUVR,END=140) IPE,VREQ
138300      IF (IPE.EQ.999999) GO TO 140
138400 C
138500 C      READ THE TOTAL REQUIREMENTS
138600      30 IF (SKIP.NE.0) GO TO 40
138700      READ (IURQ,210,END=150) JPE,I,((TREQ(I,J),J=1,9),I=1,110)
138800      IF (JPE.EQ.999999) GO TO 150
138900 C
139000 C      COMPARE PE'S
139100      40 IF (IPE-JPE) 50,70,120
139200 C
139300 C      NO TOTAL REQ. FOR IPE
139400      50 CALL SUM (VREQ,M)
139500      DO 60 J=1,9
139600      DO 60 I=1,110
139700      VREQ(I,J)=-VREQ(I,J)
139800      60 NAVREQ(I,J)=NAVREQ(I,J)+VREQ(I,J)
139900      NP=NSCANX(VSPT,NVPE,IPE)
140000      IF (NP.EQ.0) GO TO 65
140100      NP=KEY(NP)
140200      DO 62 K=1,9
140300      DO 62 J=1,110
140400      62 FIXREQ(J,K,NP)=FIXREQ(J,K,NP)+VREQ(J,K)
140500      PRXTOT(NP,IYR)=PRXTOT(NP,IYR)+M

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140600      65 WRITE (IUNOUT,210) IPE,IYR,VREQ
140700      NPE=NPE+1
140800      IF (NPE.GT.MPE) CALL ERROR(20,NPE,MPE,0,0,0)
140900      REPORT(NPE,17)=IPE
141000      REPORT(NPE,IYR)=100.
141100      SKIP=1
141200      IF (A.NE.0.0) WRITE (6,190) IPE,W
141300      GO TO 20
141400
141500      C
141600      C      MATCHING PE S
141700      70 CALL SUM (TREQ,X)
141800      CALL SUM (VREQ,Y)
141900      NPE=NPE+1
142000      IF (NPE.GT.MPE) CALL ERROR(20,NPE,MPE,0,0,0)
142100      REPORT(NPE,17)=IPE
142200      IF (X.GT.0.0) REPORT(NPE,IYR)=(Y/X)*100.
142300      IF (X.LT.Y) REPORT(NPE,IYR)=100.
142400      NP=NSCANX(VSPT,NVPE,IPE)
142500      IF (NP.EQ.0) GO TO 78
142600      NP=KEY(NP)
142700      PRXTOT(NP,IYR)=PRXTOT(NP,IYR)+Y
142800      TOTAL(NP)=TOTAL(NP)+X
142900      75 CONTINUE
143000      W=Y-X
143100      IF (A.GT.0) WRITE (6,200) IPE,W,X,Y
143200      W=-W
143300      IF (X.EQ.0.0) GO TO 90
143400      SCALE=W/X
143500      DO 80 J=1,9
143600      DO 80 I=1,110
143700      VREQ(I,J)=TREQ(I,J)*SCALE
143800      80 NAVREQ(I,J)=NAVREQ(I,J)+VREQ(I,J)
143900      GO TO 110
144000      90 DO 100 J=1,9
144100      DO 100 I=1,110
144200      VREQ(I,J)=-VREQ(I,J)
144300      100 NAVREQ(I,J)=NAVREQ(I,J)+VREQ(I,J)
144400      110 IF (NP.EQ.0) GO TO 118
144500      DO 114 J=1,9
144600      DO 114 K=1,110
144700      114 FIXREQ(K,J,NP)=FIXREQ(K,J,NP)+VREQ(K,J)
144800      115 WRITE (IUNOUT,210) IPE,IYR,VREQ
144900      SKIP=0
145000      GO TO 20
145100
145200      C
145300      C      NO VARIABLE REQUIREMENTS
145400      120 WRITE (IUNOUT,210) JPE,IYR,TREQ
145500      NPE=NPE+1
145600      IF (NPE.GT.MPE) CALL ERROR(20,NPE,MPE,0,0,0)
145700      NP=NSCANX(VSPT,NVPE,JPE)
145800      IF (NP.EQ.0) GO TO 128
145900      NP=KEY(NP)
146000      CALL SUM(TREQ,X)
146100      TOTAL(NP)=TOTAL(NP)+X
146200      DO 122 J=1,9
146300      DO 122 K=1,110
146400      122 FIXREQ(K,J,NP)=FIXREQ(K,J,NP)+TREQ(K,J)
146500      128 CONTINUE
146600      REPORT(NPE,17)=JPE
146700      REPORT(NPE,IYR)=0.
146800      SKIP=0
146900      DO 130 J=1,9
147000      DO 130 I=1,110
147100      130 NAVREQ(I,J)=NAVREQ(I,J)+TREQ(I,J)

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147000      GO TO 30
147100      C
147200      C      END OF FILE ON UNIT IUVR
147300      140 IF (JPE.EQ.99999999) GO TO 160
147400      IPE=99999999
147500      GO TO 30
147600      C
147700      C      END OF FILE ON UNIT IURO
147800      150 IF (IPE.EQ.99999999) GO TO 160
147900      JPE=99999999
148000      GO TO 40
148100      C
148200      C      END OF YEAR IYR
148300      160 IPE=999999
148400      WRITE (IUOUT,210) IPE,IYR,VREQ
148500      CALL PRINT
148600      C
148700      C      COMPUTE THE PERCENT VARIABLE FOR EACH PROXY AREA
148800      170 DO 172 I=1,5
148900      172 PROXPCC(I,IYR)=(PRXTOT(I,IYR)/TOTAL(I))*100.
149000      174 CONTINUE
149100      REMIND IUOUT
149200      C
149300      C      PRINT THE PERCENT OF EACH PE WHICH IS VARIABLE
149400      NL=100
149500      DO 230 I=1,NPE
149600      NL=NL+1
149700      IF (NL.LE.20) GO TO 230
149800      NL=0
149900      WRITE (6,220) (J,J=1BY:1LY)
150000      220 FORMAT (1H1," VARIABLE PERCENTS OF PROGRAM ELEMENTS BY YEAR"
150100      *//4X,2HPE,5X,16I7/)
150200      230 WRITE (6,240) REPORT(I,17),(REPORT(I,J),J=1,NYEAR)
150300      240 FORMAT (1H0,1X,16,3X,16F7.2)
150400      C
150500      C      WRITE THE PERCENT VARIABLE ON DISK - IUST
150600      IF (NYEAR.GE.16) GO TO 243
150700      DO 246 I=1,5
150800      DO 246 J=NYEAR+1,16
150900      246 PROXPCC(I,J)=PROXPCC(I,NYEAR)
151000      246 DO 250 I=1,5
151100      250 WRITE (IUST,260) (PROXPCC(I,J),J=1,16)
151200      260 FORMAT (16F6.2)
151300      C
151400      C      WRITE THE VARIABLE TOTALS ON DISK
151500      IF (NYEAR.GE.16) GO TO 268
151600      DO 266 I=1,7
151700      DO 266 J=NYEAR+1,16
151800      266 PRXTOT(I,J)=PRXTOT(I,NYEAR)
151900      268 DO 270 I=1,16
152000      270 WRITE (IUST,280) (PRXTOT(J,I),J=1,7)
152100      280 FORMAT (7F9.0)
152200      CLOSE (IUST,DISP=CRUNCH)
152300      RETURN
152400      C
152500      180 FORMAT (1H1,3X,4HYEAR,13)
152600      190 FORMAT (30H NO TOTAL REQUIREMENTS FOR PE,17,5X,F12.2)
152700      200 FORMAT (" VARIABLE REQUIREMENTS EXCEED NARM TOTAL FOR PE ",16,
152800      * " BY ",F4.0,4X," TOTAL = ",F10.0,5X," VARIABLE = ",F10.0)
152900      210 FORMAT (216,990F6.1)
153000      END
153100      C
153200      C.....
153300      C
153400      SUBROUTINE ADDFIX
153500      C

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153400 C      ADJS THE FIXED ENLISTED REQUIREMENTS, RATING/PAYGRADE,
153500 C      TO THOSE COMPUTED BY THE ENREP MODEL
153600 C      AND COMPUTES VARIABLE REQUIREMENTS FOR THOSE PE THE USER
153700 C      HAS MADE VARIABLE
153800 C      COMMON /51/ WASTE(5), IND, IYR, FIAR, ILOS, NYEAR,
153900 C      *      PRAPC(7,16,2), WASTE2(328), PRHREQ(117,7),
154000 C      *      NAVREQ(111,10),
154100 C      *      TOTREQ(111,10,7),
154200 C      *      WASTE3(110,9,31),
154300 C      *      FREQ(117,9), VREQ(110,9), UVREQ(119,2)
154400 C      COMMON /52/ NVFS(5,16), OVFS(5,16), FIXPCT(16)
154500 C      COMMON /50/ VSPT(75), KEY(75), NVPE
154600 C      COMMON /FILES/ IUSF,IUAF,IUUA1,IUUA2,IUSJ,
154700 C      *      IUSO,IUAD,IURQ,IURSF,IURAF,IUVR,IURA,
154800 C      *      IUEPA,IUOUT,IUST,IUIN,IUPH,IBY
154900 C      INTEGER VSPT, SKIP
155000 C      REAL NVFS, NAVREQ
155100 C      IF (NYEAR.GE.7) REWIND IUEPA
155200 C      IU=IURQ
155300 C
155400 C      LOOP ON YEARS
155500 C      DO 10 IYR=1,NYEAR
155600 C      WRITE (6,170) IYR
155700 C      IF (IYR.GE.7) IU=IUEPA
155800 C      SKIP=0
155900 C      DO 10 J=1,10
156000 C      DO 10 I=1,111
156100 C      NAVREQ(I,J)=0.0
156200 C      DO 10 K=1,7
156300 C      10 TOTREQ(I,J,K)=0.0
156400 C
156500 C      READ VARIABLE REQUIREMENTS
156600 C      20 READ (IUVR,END=130) IPE,VREQ
156700 C      IF (IPE.EQ.999999) GO TO 130
156800 C
156900 C      READ FIXED REQUIREMENTS
157000 C      30 IF (SKIP.NE.0) GO TO 50
157100 C      READ (IU,END=140) JPE,I,FREQ
157200 C      IF (IYR.EQ.6.AND.NYEAR.GT.6) WRITE (IUEPA,190) JPE,IYR,FREQ
157300 C      IF (JPE.EQ.999999) GO TO 140
157400 C
157500 C      COMPARE PE'S
157600 C      50 IF (IPE-JPE) 60,80,110
157700 C
157800 C      NO FIXED REQUIREMENTS
157900 C      60 WRITE (IUOUT,190) IPE,IYR,VREQ
158000 C      SKIP=1
158100 C      DO 70 J=1,9
158200 C      DO 70 I=1,110
158300 C      70 NAVREQ(I,J)=NAVREQ(I,J)+VREQ(I,J)
158400 C      WRITE (6,190) IPE
158500 C      NP=NSCANX(VSPT,NVPE,IPE)
158600 C      IF (NP.EQ.0) GO TO 20
158700 C      VP=KEY(NP)
158800 C      DO 72 J=1,9
158900 C      DO 72 I=1,110
159000 C      72 TOTREQ(I,J,NP)=TOTREQ(I,J,NP)+VREQ(I,J)
159100 C      GO TO 20
159200 C
159300 C      MATCHED PE'S
159400 C      80 NP=NSCANX(VSPT(1),NVPE,JPE)
159500 C      ADJ=0.0
159600 C      IF (NP.EQ.0) GO TO 90
159700 C      J=KEY(NP)

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157800      IF (NVFS(J,IYR).NE.OVFS(J,IYR)) ADJ=((NVFS(J,IYR)-OVFS(J,IYR))/
157900      *
158000      *      (1.0-NVFS(J,IYR)))
158100      90 DO 100 J=1,9
158200      DO 100 I=1,110
158300      FREQ(I,J)=FREQ(I,J)+(FREQ(I,J)*ADJ)
158400      FREQ(I,J)=FREQ(I,J)+FIXPCT(IYR)*FREQ(I,J)
158500      FREQ(I,J)=FREQ(I,J)+VREQ(I,J)
158600      100 NAVREQ(I,J)=NAVREQ(I,J)+FREQ(I,J)
158700      WRITE (IUDUT,190) JPE,IYR,FREQ
158800      SKIP=0
158900      IF (NP.EQ.0) GO TO 20
159000      NP=KEY(NP)
159100      DO 102 J=1,9
159200      DO 102 I=1,110
159300      102 TOTREQ(I,J,NP)=TOTREQ(I,J,NP)+FREQ(I,J)
159400      GO TO 20
159500      C
159600      C      NO VARIABLE REQUIREMENTS
159700      110 CALL CPUSER(JPE,OVREQ)
159800      SKIP=0
159900      DO 120 J=1,9
160000      DO 120 I=1,110
160100      FREQ(I,J)=FREQ(I,J)+FIXPCT(IYR)*FREQ(I,J)+OVREQ(I,J)
160200      120 NAVREQ(I,J)=NAVREQ(I,J)+FREQ(I,J)
160300      WRITE (IUDUT,190) JPE,IYR,FREQ
160400      NP=MSCANX(VSPT,NVPE,NPE)
160500      IF (NP.EQ.0) GO TO 30
160600      NP=KEY(NP)
160700      DO 122 J=1,9
160800      DO 122 I=1,110
160900      122 TOTREQ(I,J,NP)=TOTREQ(I,J,NP)+FREQ(I,J)
161000      GO TO 30
161100      C
161200      C      END OF FILE ON VARIABLE
161300      130 IF (JPE.EQ.99999999) GO TO 150
161400      IPE=99999999
161500      GO TO 30
161600      C
161700      C      END OF FILE ON FIXED
161800      140 IF (IPE.EQ.99999999) GO TO 150
161900      JPE=99999999
162000      GO TO 30
162100      C
162200      C      END OF YEAR IYR
162300      150 IPE=999999
162400      WRITE (IUDUT,190) IPE,IYR,FREQ
162500      IF (IYR.GE.6.AND.NYEAR.GT.6) REWIND IUDUT
162600      C
162700      C      PRINT ENREP TOTAL REQUIREMENTS FOR THIS YEAR
162800      CALL PRINT
162900      C
163000      C      WRITE REQUIREMENTS ON DISK FOR PROPHET SYSTEM
163100      CALL PROPHET
163200      C
163300      C      IF DESIRED, TRANSLATE FROM RATING/PAYGRADE TO RATING/LDS
163400      IF (ILDS.EQ.0) CALL TRFLDS(7)
163500      C
163600      160 CONTINUE
163700      REWIND IUDUT
163800      RETURN
163900      C
164000      170 FORMAT (I41,3X,4HYEAR,13)
164100      180 FORMAT (21H NO FIXED REQ FOR PE,(7)
164200      190 FORMAT (216,990F6.1)
164300      END
164400      C

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166700 C.....
166800 C
166900 SUBROUTINE PROPHET(INOC)
167000 COMMON /S1/ WASTE(S), IND, IYR, FIXR, ILOS, NYEAR,
167100 * WASTE1(S52), PRHREQ(110,7),
167200 * NAVREQ(111,10)
167300 COMMON /S2/ IRATE(110), JRATE(110)
167400 COMMON /FILES/ IUSF,IUAF,IUR1,IUR2,IUSQ,
167500 * IUSD,IUAD,IURQ,IURSF,IURAF,IUR,IUR,
167600 * IUEPA,IUOUT,IUST,IUIN,IUPH,IBY
167700 DIMENSION KYRATE(110)
167800 DATA KYRATE / 1, 1, 1, 1, 1, 1, 1, 0, 0,
167900 * 1, 1, 4, 0, 0, 0, 4, 0, 0, 0,
168000 * 1, 1, 3, 0, 0, 1, 1, 1, 1, 1,
168100 * 1, 6, 0, 0, 0, 0, 0, 3, 0, 0,
168200 * 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,
168300 * 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,
168400 * 1, 1, 1, 1, 1, 1, 3, 0, 0, 1,
168500 * 1, 1, 1, 1, 1, 4, 0, 0, 0, 1,
168600 * 4, 0, 0, 0, 1, 1, 1, 1, 4, 0,
168700 * 0, 0, 1, 1, 1, 1, 1, 1, 1, 1,
168800 * 1/
168900 C
169000 IF (INOC.GT.1) GO TO 50
169100 C
169200 C ADD REQUIREMENTS TO PRHREQ FOR THIS YEAR
169300 C SUM ACROSS SERVICE RATINGS TO GENERAL RATINGS
169400 C IF (IYR.GT.7) RETURN
169500 DO 10 I=1,110
169600 10 PRHREQ(I,IYR)=0.0
169700 DO 30 I=1,110
169800 IF (KYRATE(I).EQ.0) GO TO 30
169900 DO 20 J=1,KYRATE(I)
170000 20 PRHREQ(I,IYR)=PRHREQ(I,IYR)+NAVREQ(I+J-1,10)
170100 30 CONTINUE
170200 RETURN
170300 C
170400 C WRITE REQUIREMENTS ON DISK FOR PROPHET
170500 C 50 DO 60 I=1,110
170600 IF (KYRATE(I).EQ.0) GO TO 60
170700 WRITE (IUPH,1000) IRATE(I),(PRHREQ(I,J),J=1,7)
170800 1000 FORMAT (2X,A2,2X,7F9.0)
170900 60 CONTINUE
171000 CLOSE (IUPH,DISP=CRUNCH)
171100 RETURN
171200 C
171300 C.....
171400 C
171500 SUBROUTINE TRFLOS(INOC)
171600 COMMON /S1/ WASTE(S), IND, IYR, FIXR, ILOS, NYEAR,
171700 * WASTE1(1002), X(10,32),
171800 * NAVREQ(111,10), WASTE2(111-10,7), TRANSF(110,9,31),
171900 * NAVLOS(111,32)
172000 COMMON /FILES/ IUSF,IUAF,IUR1,IUR2,IUSQ,
172100 * IUSD,IUAD,IURQ,IURSF,IURAF,IUR,IUR,
172200 * IUEPA,IUOUT,IUST,IUIN,IUPH,IBY
172300 DIMENSION IPROXY(110)
172400 COMMON /S2/ IRATE(110), JRATE(110)
172500 REAL NAVLOS, NAVREQ
172600 C
172700 IF (INOC.GT.1) GO TO 60
172800 C

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172600 C      READ INVENTORY TAPE FROM PERS2X AND COMPUTE TRANSFORMATION
172700 C      PERCENTS BY LOS FOR EACH PAYGRADE FOR THE NEXT RATING
172800      WRITE (6,5)
172900      5 FORMAT (1H1)
173000      DO 15 I=1,31
173100      DO 15 J=1,9
173200      DO 15 K=1,110
173300      15 TRANSF(K,J,I)=0.0
173400 C
173500      10 DO 20 I=1,32
173600      READ (10IN,1000,END=50) ICODE,X(9,I),X(8,I),X(7,I),X(6,I),X(5,I),
173700      * X(4,I),X(3,I),X(2,I),X(1,I),IY
173800      1000 FORMAT (4X,A4,7I7,X,12)
173900      IF (IY.NE.1) CALL ERROR(15,ICODE,IY,1,0,0)
174000      20 CONTINUE
174100 C
174200 C      LOOK FOR MATCH IN ARRAY JRATE
174300      JR=NSCANX(JRATE(1),110,ICODE)
174400      IF (JR.GT.0) GO TO 30
174500      CALL ERROR(16,ICODE,0,0,0,0)
174600      GO TO 10
174700 C
174800 C      COMPUTE TRANSFORMATION PERCENTAGES
174900      30 DO 40 I=1,9
175000      DO 40 J=1,31
175100      40 IF (X(I,32).GT.0.0) TRANSF(JR,I,J)=X(I,J)/X(I,32)
175200      GO TO 10
175300 C
175400 C      END OF FILE
175500      50 LOCK 10IN
175600      RETURN
175700 C
175800 C      APPLY PERCENTAGES TO THE REQUIREMENTS
175900 C
176000 C      SOME RATINGS ARE SPLIT IN ENREP, AS ELSEWHERE IN THE NAVY,
176100 C      BY PAYGRADE, BUT THEY ARE NOT SPLIT IN THE ENLISTED INVENTORY
176200 C      FILE. THEREFORE, THE FOLLOWING HIGH PAYGRADE RATINGS ARE USING
176300 C      THE INVENTORY DATA OF THEIR CORRESPONDING RATING.
176400 C      ST (3400) AND STG (0401) - CELL 7 AND CELL 8
176500 C      PI (1080) AND IM (1100) - CELL 26 AND CELL 27
176600 C      CU (5080) AND CE (5300) - CELL 65 AND CELL 67
176700 C      EQ (5330) AND ED (5410) - CELL 68 AND CELL 69
176800 C      AF (6080) AND AD (6200) - CELL 74 AND CELL 76
176900 C      AV (6180) AND AD 96200) - CELL 75 AND CELL 76
177000      60 DO 62 I=1,110
177100      62 IPROXY(I)=0
177200      IPROXY(7)=1
177300      IPROXY(26)=27
177400      IPROXY(65)=67
177500      IPROXY(68)=69
177600      IPROXY(74)=76
177700      IPROXY(75)=76
177800      DO 70 J=1,32
177900      DO 70 I=1,111
178000      70 NAVLOS(I,J)=0.0
178100      DO 90 I=1,110
178200      II=I
178300      IF (IPROXY(I).GT.0) II=IPROXY(I)
178400      DO 80 J=1,9
178500      DO 80 K=1,31
178600      80 NAVLOS(I,K)=NAVLOS(I,K)+NAVREQ(I,J)*TRANSF(II,J,K)
178700      90 CONTINUE
178800 C
178900 C      PRINT RESULTS

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177000      I=(YR+IBY-1
177100      WRITE (6,2000) I,(J,J=1,16)
177200 2000 FORMAT (1H1//40X,"ALL NAVY ENLISTED REQUIREMENTS FOR FY",I4//
177300      *56X,"LENGTH OF SERVICE"/7X,6HRATING,5X,16(I7)/)
177400      DO 100 I=1,110
177500      WRITE (6,2010) IRATE(I),JRATE(I),(NAVLOS(I,J),J=1,16)
177600 2010 FORMAT (5X,A3,1X,A4,5X,16F7.0)
177700      DO 100 J=1,31
177800      100 NAVLOS(111,J)=NAVLOS(111,J)+NAVLOS(I,J)
177900      WRITE (6,2020) (NAVLOS(111,I),I=1,16)
180000 2020 FORMAT (10X,3HLOS/8X,5HTOTAL,5X,16F7.0)
180100      DO 110 J=1,31
180200      DO 110 I=1,111
180300      110 NAVLOS(I,32)=NAVLOS(I,32)+NAVLOS(I,J)
180400      WRITE (6,2030) (I,I=17,31)
180500 2030 FORMAT (1H1//55X,"LENGTH OF SERVICE",55X,6HRATING/7X,6HRATING,
180600      *5X,15(I7),5X,5HTOTAL/)
180700      DO 120 I=1,110
180800      120 WRITE (6,2040) IRATE(I),JRATE(I),(NAVLOS(I,J),J=17,32)
180900 2040 FORMAT (5X,A3,1X,A4,5X,15F7.0,F10.0)
181000      WRITE (6,2050) (NAVLOS(111,I),I=17,32)
181100 2050 FORMAT (10X,3HLOS/8X,5HTOTAL,5X,15F7.0,F10.0)
181200      RETURN
181300      END
181400 C
181500 C*****
181600 C
181700      SUBROUTINE OVRN (IYR,PU,PE,YRTOTA,SPFAC,UNITR)
181800 C
181900 C      THIS SUBROUTINE PERFORMS THE USER OVERRIDES
182000 C      TO NAHM ONBOARD AND SUPPORT FACTORS
182100 C      FOR PARTICULAR COMBINATIONS OF YEAR/ACI/PE/PU
182200 C
182300      DIMENSION SPFAC(5), UNITR(110,9)
182400      COMMON /63/ OFUPDT(100,10), NDFUP,
182500      * PFUPDT(50,9), LPFUPDT(50,20,2), NPFUP
182600      DIMENSION IFUPDT(100,10), JFUPDT(50,9)
182700      EQUIVALENCE (OFUPDT(1),IFUPDT(1)), (PFUPDT(1),JFUPDT(1))
182800      INTEGER PU,PE
182900 C
183000 C      CHECK DIRECT OVERRIDES
183100 C
183200      DO 10 I=1,NDFUP
183300      IF (PU.NE.IFUPDT(I,7)) GO TO 10
183400      IF (PE.EQ.IFUPDT(I,8)) GO TO 20
183500 10 CONTINUE
183600      GO TO 60
183700 C
183800 C      MATCH FOUND
183900 C
184000 20 IF (IYR.LT.IFUPDT(I,9).OR.IYR.GT.IFUPDT(I,10)) GO TO 60
184100      WRITE (6,21) PU,PE
184200 21 FORMAT (1H0,"MATCH ON DIRECT FACTOR UPDATE - PU/PE = ",I6,1H/,I6)
184300      IF (OFUPDT(I,6).LT.0.0) GO TO 40
184400 C
184500 C      ONBOARD MANNING
184600 C
184700      IF (YRTOTA.LE.0) CALL ERROR (14,PU,PE,1,0.0)
184800      SCALE=0.0
184900      IF (YRTOTA.GT.0) SCALE=OFUPDT(I,6)/YRTOTA
185000      DO 30 K=1,9
185100      DO 30 J=1,110
185200 30 UNITR(J,K)=UNITR(J,K)*SCALE
185300      WRITE (6,22) YRTOTA,OFUPDT(I,6)
185400 22 FORMAT (" ONBOARD FACTOR CHANGED FROM ",F9.2," TO ",F9.2)
185500      YRTOTA=OFUPDT(I,6)
185600 C

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135400 C          SUPPORT MANNING
135500 40 DO 50 J=1,5
135600 IF (OFUPDT(I,J).LT.0.0) GO TO 50
135700 WRITE (6,23) J,SPFAC(J),OFUPDT(I,J)
135800 23 FORMAT (" FACTOR "I1," CHANGED FROM "F9.2," TO "F9.2)
135900 SPFAC(J)=OFUPDT(I,J)
136000 50 CONTINUE
136100 RETURN
136200 C
136300 C          CHECK THE PERCENTAGE FACTORS
136400 60 DO 80 I=1,NPFUP
136500 DO 70 J=1,JFUPDT(I,9)
136600 IF (PU.NE.LPFUPD(I,J,1)) GO TO 70
136700 IF (PE.NE.LPFUPD(I,J,2)) GO TO 70
136800 IF (IYR.GE.JFUPDT(I,7).AND.IYR.LE.JFUPDT(I,8)) GO TO 90
136900 70 CONTINUE
137000 80 CONTINUE
137100 RETURN
137200 C
137300 C          MATCH FOUND
137400 90 WRITE (6,91) PU,PE
137500 91 FORMAT (1H0,"MATCH ON PERCENTAGE FACTOR UPDATE - PU/PE = "F15.1H/,
137600 *I6)
137700 IF (PFUPDT(I,5).EQ.-999999.) GO TO 110
137800 C
137900 C          ONBOARD MANNING
138000 X=YRTOTA+Y(TOTA*PFUPDT(I,6)
138100 SCALE=X/YRTOTA
138200 DO 100 K=1,9
138300 DO 100 J=1,110
138400 100 UNITR(J,K)=UNITR(J,K)*SCALE
138500 WRITE (6,93) YRTOTA,X
138600 93 FORMAT (" ONBOARD FACTOR CHANGED FROM "F9.2," TO "F9.2)
138700 YRTOTA=X
138800 C
138900 C          SUPPORT MANNING
139000 110 DO 120 J=1,5
139100 IF (PFUPDT(I,J).EQ.-999999.) GO TO 120
139200 X=SPFAC(J)+PFUPDT(I,J)*SPFAC(J)
139300 WRITE (6,95) J,SPFAC(J),X
139400 95 FORMAT (" FACTOR "I1," CHANGED FROM "F9.2," TO "F9.2)
139500 SPFAC(J)=X
139600 120 CONTINUE
139700 RETURN
139800 END
139900 C
140000 C*****
140100 C
140200 SUBROUTINE ERROR (TYPE,PARM1,PARM2,PARM3,PARM4,PARM5)
140300 INTEGER TYPE, PARM1, PARM2, PARM3, PARM4, PARM5
140400 GO TO (10,20,30,40,50,60,70,80,90,100,110,120,130,140,150,160,
140500 * 170,180,190,200), TYPE
140600 C          1 - NO UNIT REQUIREMENTS FOR THIS ACT AND PE
140700 10 WRITE (6,700) PARM1,PARM2,PARM3
140800 RETURN
140900 C          2 - NUMBER OF PE'S NUMBER MORE THAN PARM3
141000 20 WRITE (6,800) PARM2
141100 PARM1=PARM3
141200 RETURN
141300 C          3 - TOO MANY PE CODES IN A PERCENTAGE UPDATE GROUP
141400 30 WRITE (6,900)
141500 PARM1=20
141600 RETURN
141700 C          4 - INPUT FORCE RECORDS NUMBER MORE THAN PARM5

```

```

191100      40 WRITE (6,1000) PARM5,PARM2,PARM3,PARM4
191900      PARM1=PARM5
192000      RETURN
192100      C          5 - WRONG NUMBER OF SUPPORT PE'S READ
192200      50 WRITE (6,1100) PARM1,PARM2,PARM3
192300      RETURN
192400      C          6 - TOO MANY FORCE UPDATES ENTERED
192500      60 WRITE (6,1200)
192600      PARM1=200
192700      RETURN
192800      C          7 - TOO MANY DIRECT FACTOR UPDATES
192900      70 WRITE (6,1300)
193000      PARM1=100
193100      RETURN
193200      C          8 - INVALID SUPPORT AREA IDENTIFIER
193300      80 WRITE (6,1400) PARM3,PARM1,PARM2
193400      PARM3=0
193500      C          9 - TOO MANY PERCENTAGE FACTOR UPDATES
193600      90 WRITE (6,1500)
193700      PARM1=50
193800      RETURN
193900      C          10 - TOO MANY CHANGES TO THE NARM VARIABLE PERCENTS
194000      100 WRITE (6,1600)
194100      PARM1=5
194200      RETURN
194300      C          11 - INVALID SUPPORT AREA IDENTIFIER - VARIABLE PERCENT CHANGE
194400      110 WRITE (6,1700)
194500      PARM1=0
194600      RETURN
194700      C          12 - INVALID YEAR SPECIFIED - VARIABLE PERCENT CHANGE
194800      120 WRITE (6,1800) PARM2
194900      PARM1=0
195000      RETURN
195100      C          13 - TOO MANY USER SUPPORT AREAS
195200      130 WRITE (6,1900)
195300      PARM1=10
195400      RETURN
195500      C          14 - ALL ZERO PE - USER OVERRIDE TO FACTORS
195600      140 WRITE (6,2000) PARM1,PARM2,PARM3
195700      RETURN
195800      C          15 - LOST A RECORD ON THE ENLISTED INVENTORY TAPE
195900      150 WRITE (6,2100) PARM1,PARM2,PARM3
196000      RETURN
196100      C          16 - UNKNOWN RATING APPEARS ON THE ENLISTED INVEN. TAPE
196200      160 WRITE (6,2200) PARM1
196300      RETURN
196400      C          17 - ARRAY TOO SMALL - TOO MANY ACT CODES
196500      170 WRITE (6,2300) PARM2
196600      PARM1=PARM2
196700      RETURN
196800      C          18 - ARRAY TOO SMALL - TOO MANY PE'S IN AN ACT CODE
196900      180 WRITE (6,2400) PARM2
197000      PARM1=PARM2
197100      RETURN
197200      C          19 - ARRAY TOO SMALL - TOO MANY PU'S IN AN ACT/PE PAIR
197300      190 WRITE (6,2500) PARM2
197400      PARM1=PARM2
197500      RETURN
197600      C
197700      C          20 - ARRAY TOO SMALL - TOO MANY PE CODES
197800      200 WRITE (6,2600) PARM2
197900      PARM1=PARM2
198000      C
198100      700 FORMAT (53H0 THERE IS NO UNIT REQUIREMENTS MATRIX FOR ACT/PE/PU .I

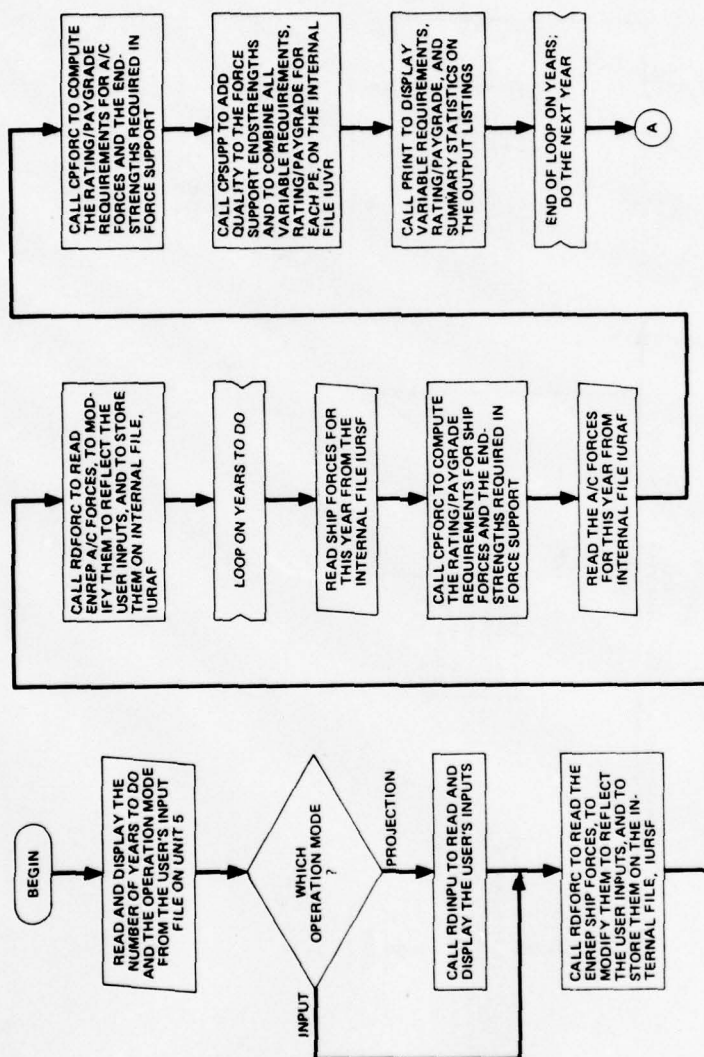
```

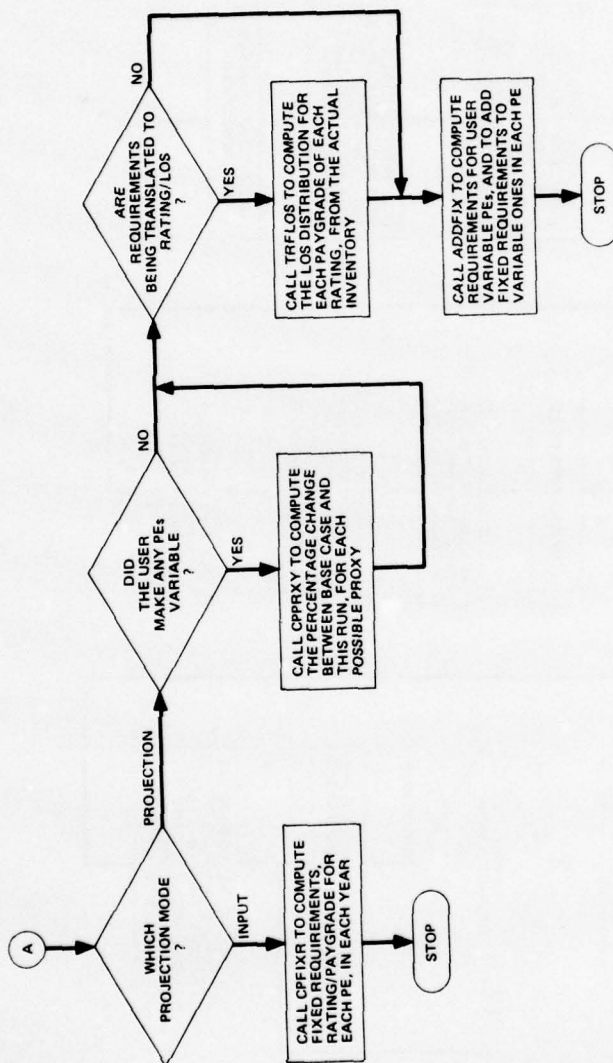


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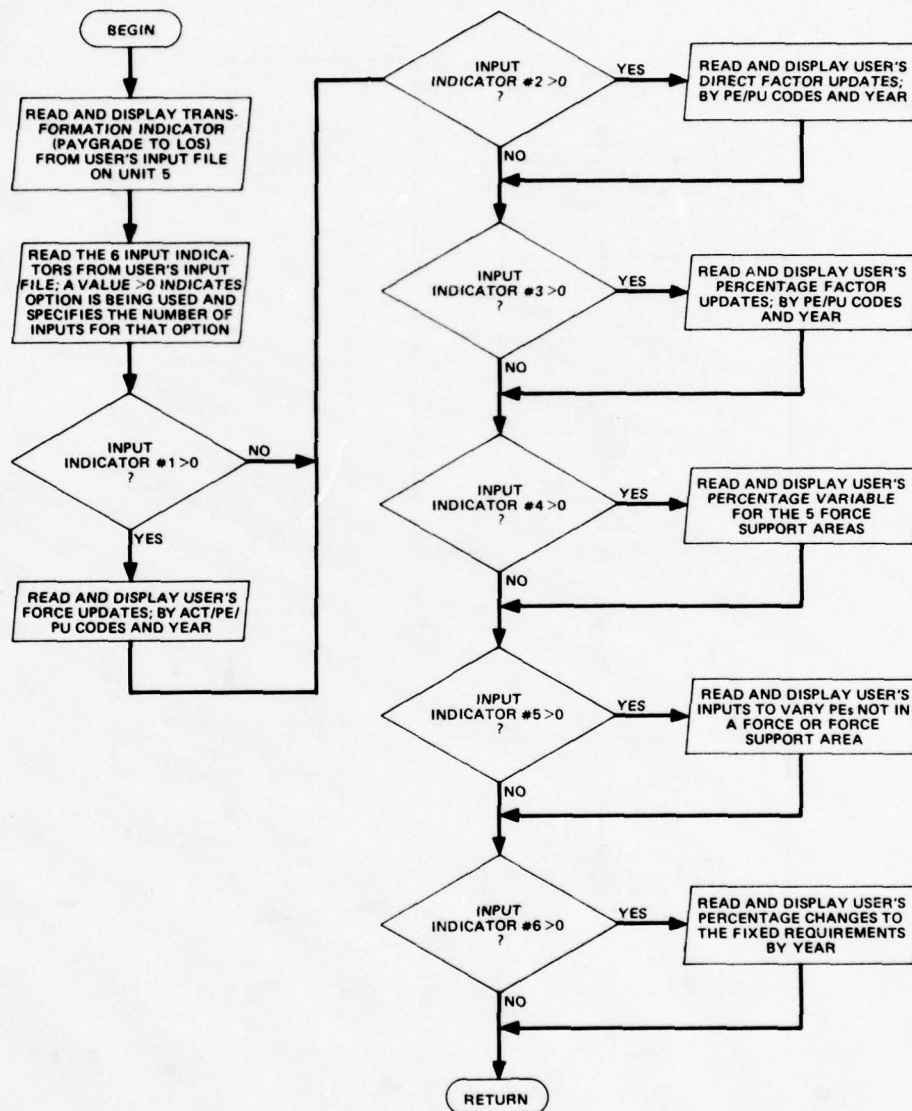
198200      *4,1H/,16,1H/,16)
198300      800 FORMAT (3110 THERE ARE TOO MANY PE'S. PE ,16,20H IS INCLUDED) IN T
198400      *HE LAST PE.)
198500      900 FORMAT ("0 THERE ARE TOO MANY PE CODES IN A PERCENTAGE FACTOR UPDA
198600      *TE - LIMIT IS 20")
198700      1000 FORMAT("0 THERE ARE MORE THAN ",14," FORCES RECORDS. FORCES FOR AC
198800      *T/PE/PU ",14,1H/,16,1H/,16,30H ARE INCLUDED IN THE LAST ONE.)
198900      1100 FORMAT (2600 ERROR IN SUPPORT SECTOR ,11,1H.,2X,13,?H PE'S WERE R
199000      *EAD INSTEAD OF ,13,1H.)
199100      1200 FORMAT (1H0,39H THERE ARE TOO MANY INPUT FORCE UPDATES.)
199200      1300 FORMAT (1H0,"THERE ARE TOO MANY DIRECT FACTOR UPDATES - LIMIT IS 1
199300      *00")
199400      1400 FORMAT (1H0,"INVALID SUPPORT AREA IDENTIFIER -",12," IN PU/PE ",
199500      *16,1H/,16)
199600      1500 FORMAT (1H0,"THERE ARE TOO MANY PERCENTAGE FACTOR UPDATES - LIMIT
199700      *IS 50")
199800      1600 FORMAT (1H0,"TOO MANY CHANGES TO THE NARM VARIABLE PERCENTS")
199900      1700 FORMAT (1H0,"INVALID SUPPORT AREA IDENTIFIER FOR A CHANGE TO THE N
200000      *ARM VARIABLE PERCENTS")
200100      1800 FORMAT (1H0,"INVALID YEAR SPECIFIED FOR A CHANGE TO VARIABLE PERCE
200200      *NT IN SUPPORT AREA",12)
200300      1900 FORMAT (1H0,"TOO MANY USER SUPPORT AREAS - LIMIT OF 10")
200400      2000 FORMAT (1H0,"0) BILLETS FOR PU/PE ",16,1H/,16," WHICH USER IS ATTE
200500      *MPING TO UPDATE FACTOR",12)
200600      2100 FORMAT (1H0,"LOST RECORD ON THE ENLISTED INVENTORY TAPE, ",
200700      *RATING IS ",14," AND LOS CELL IS ",12," AND SHOULD BE ",12)
200800      2200 FORMAT (1H0,"UNKNOWN RATING ON THE ENLISTED INVENTORY TAPE,",
200900      *", ",14)
201000      2300 FORMAT (1H0,"INCREASE ARRAY SIZE - MORE THAN",13," ACT CODES")
201100      2400 FORMAT (1H0,"INCREASE ARRAY SIZE - MORE THAN",13," PE CODES IN AN
201200      *ACT CODE")
201300      2500 FORMAT (1H0,"INCREASE ARRAY SIZE - MORE THAN",13," PU CODES IN AN
201400      *ACT/PE PAIR")
201500      2600 FORMAT (1H0,"INCREASE ARRAY SIZE - MORE THAN",14," PE CODES")
201600      END
201700      C
201800      C*****
201900      C
202000      INTEGER FUNCTION NSCANX(M,L,I)
202100      DIMENSION M(1)
202200      J=L
202300      5 IF(M(J).IS.I) GO TO 10
202400      J=J-1
202500      IF (J.GT.0) GO TO 5
202600      J=0
202700      10 NSCANX=J
202800      RETURN
202900      END

```

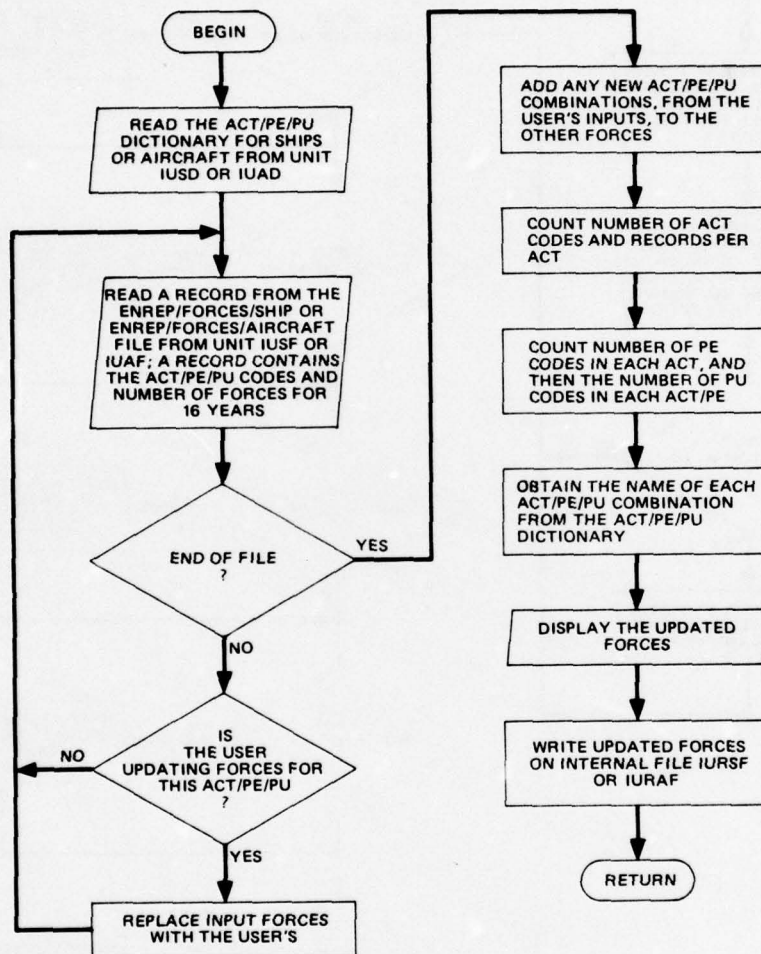




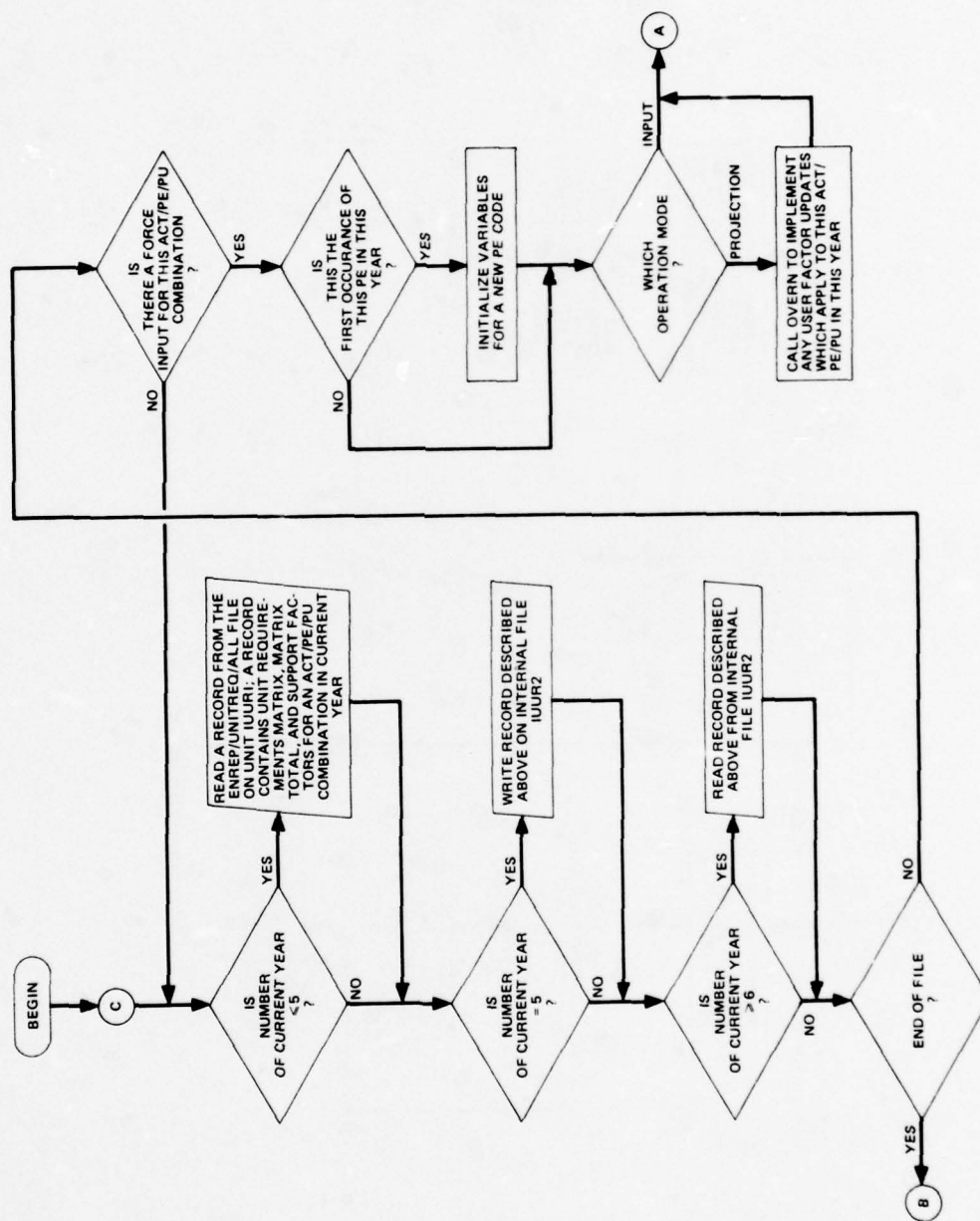
Subroutine RDINPU

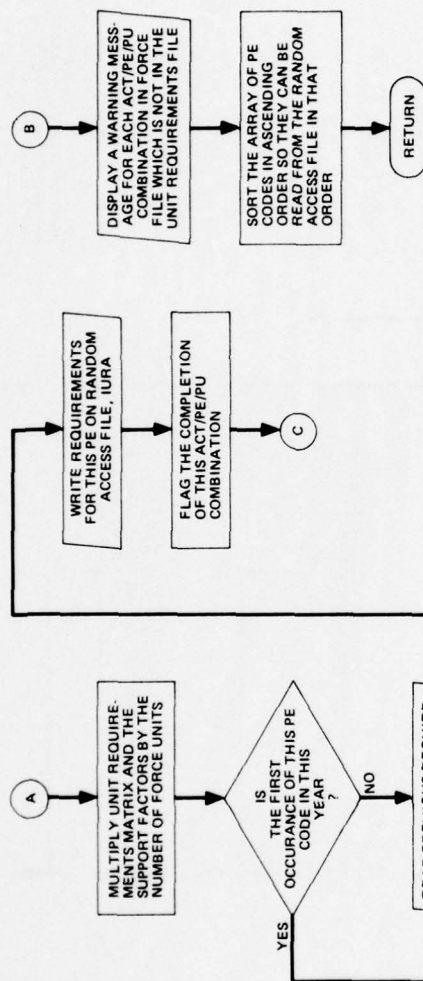


Subroutine RDFORC

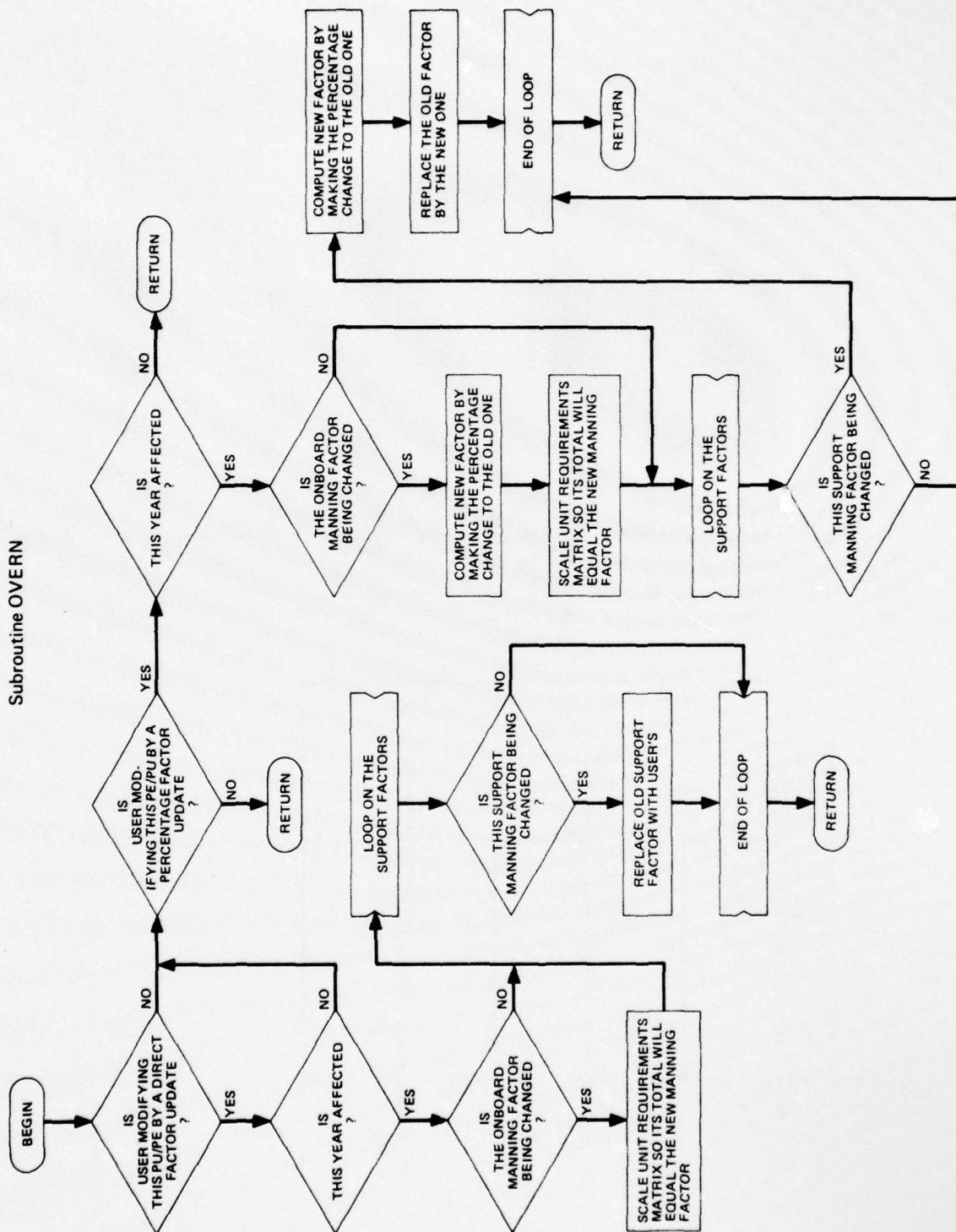


Subroutine CPFORC



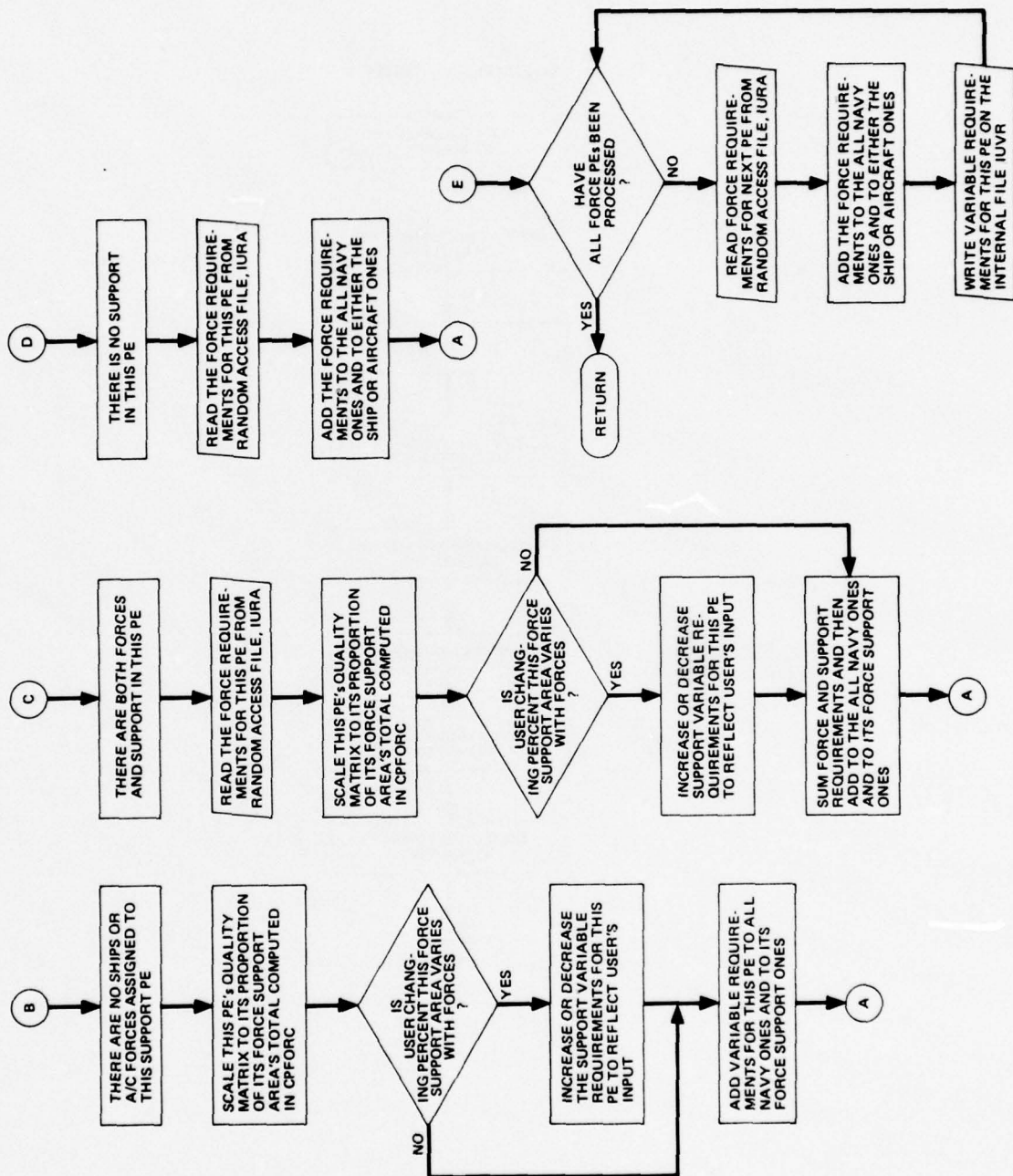


Subroutine OVERN

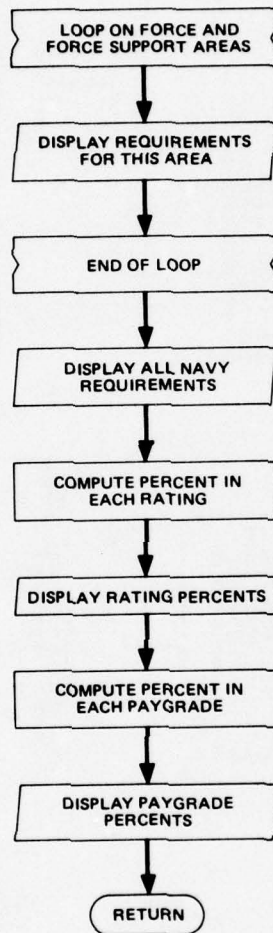


```

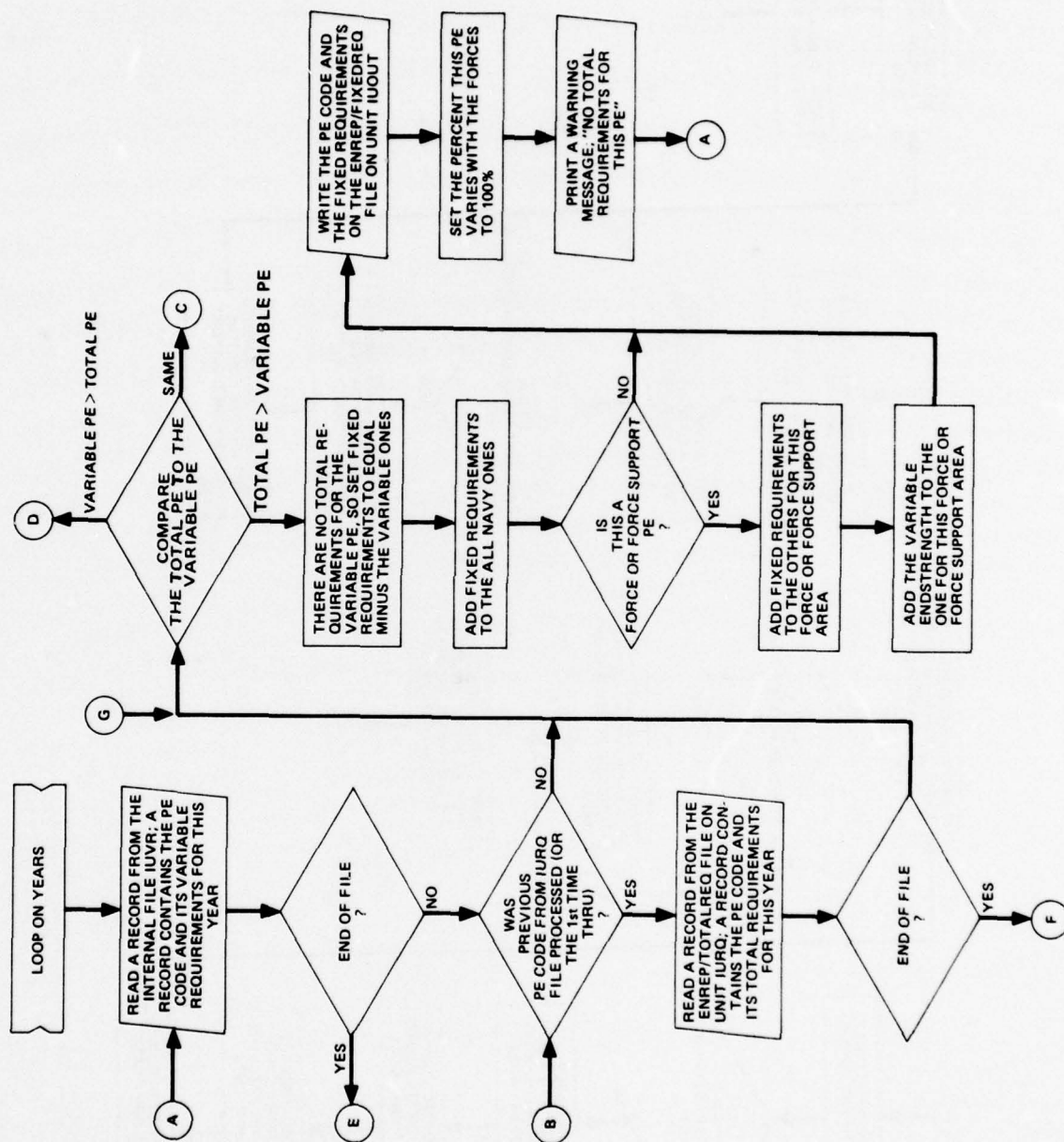
graph TD
    BEGIN([BEGIN]) --> D1{IS  
NUMBER  
OF CURRENT YEAR  
≤ 5  
7}
    D1 -- YES --> R1[READ THE HEADER RECORD  
FROM THE ENREP(SUPPORT)  
QUALITY FILE ON UNIT IUSQ.  
THE RECORD CONTAINS THE  
QUALITY MATRIX TOTALS  
AND ENREP(SUPPORT)  
FOR ENREP(SUPPORT)  
AREA IN CURRENT YEAR]
    D1 -- NO --> D2{IS  
NUMBER  
OF CURRENT YEAR  
≤ 5  
7}
    R1 --> D2
    D2 -- YES --> W1[WRITE RECORD DESCRIBED  
ABOVE ON INTERNAL FILE  
IUPEA]
    D2 -- NO --> D3{IS  
NUMBER  
OF CURRENT YEAR  
≤ 6  
7}
    W1 --> D3
    D3 -- YES --> R2[READ RECORD DESCRIBED  
ABOVE FROM INTERNAL  
FILE IUPEA]
    D3 -- NO --> D4{END OF FILE  
7}
    R2 --> D4
    D4 -- YES --> E1([E])
    D4 -- NO --> D5{COM-  
PARE SUPPORT PE  
CODE JUST READ TO CUR-  
RENT FORCE PE CODE (If  
1st time thru, current  
one is 1st one)}
    D5 -- LESS --> B1((B))
    D5 -- GREATER --> D6{D}
    D5 -- SAME --> C1((C))
    B1 --> D1
    D6 --> E1
  
```

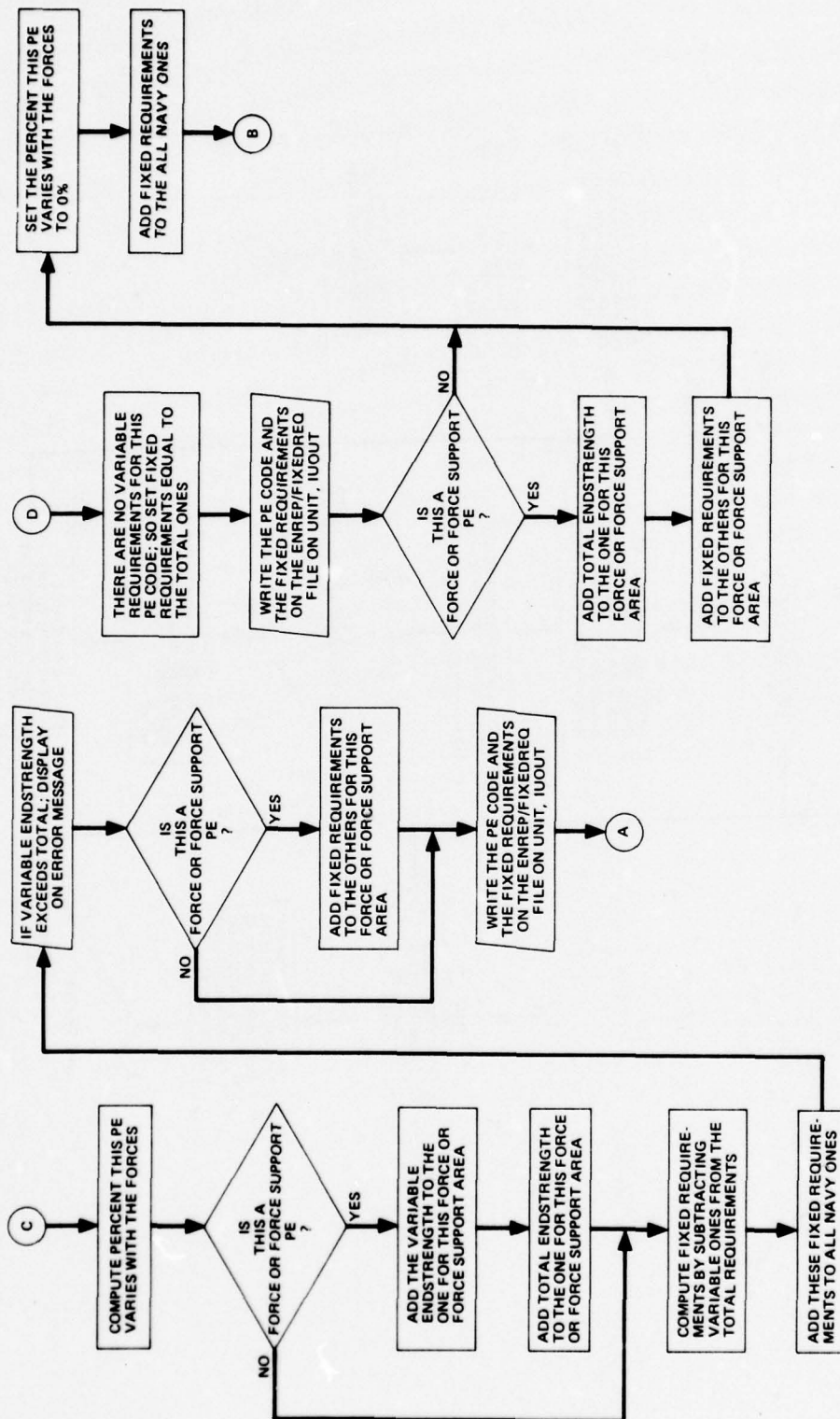



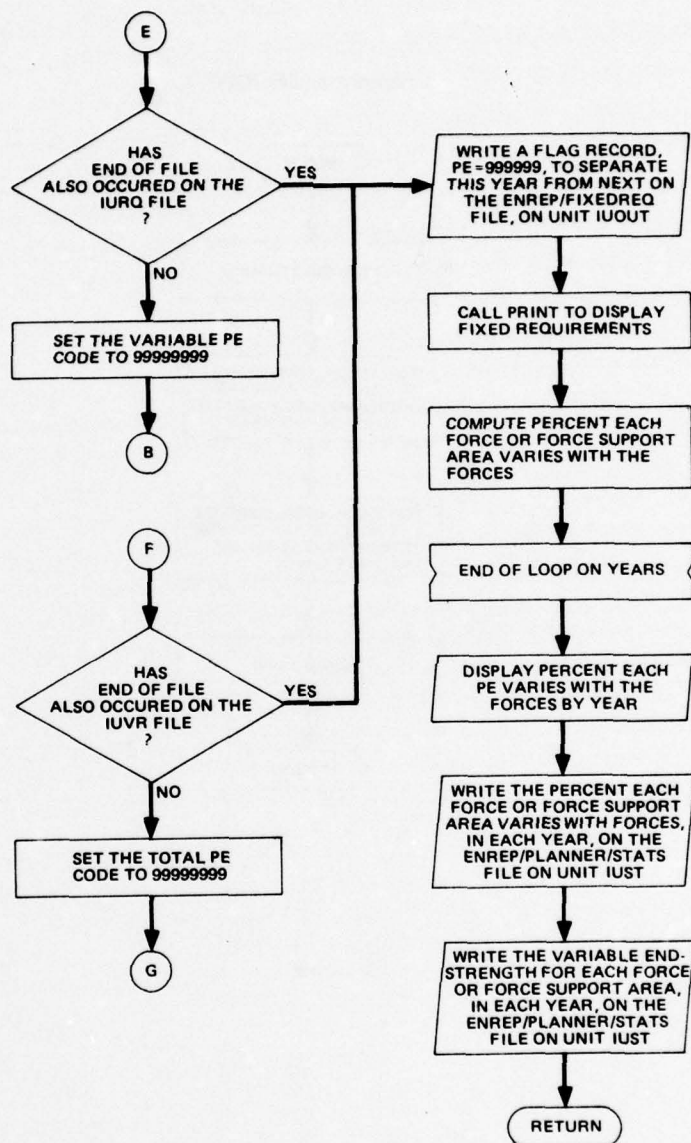
Subroutine *PRINT*



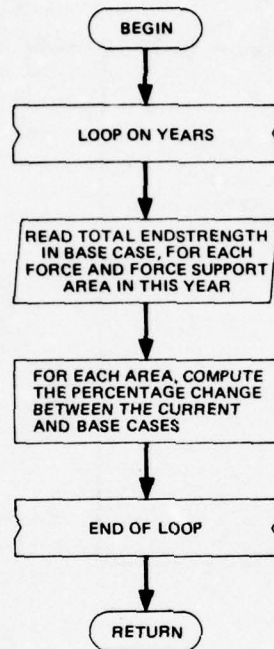
Subroutine CPFIXR





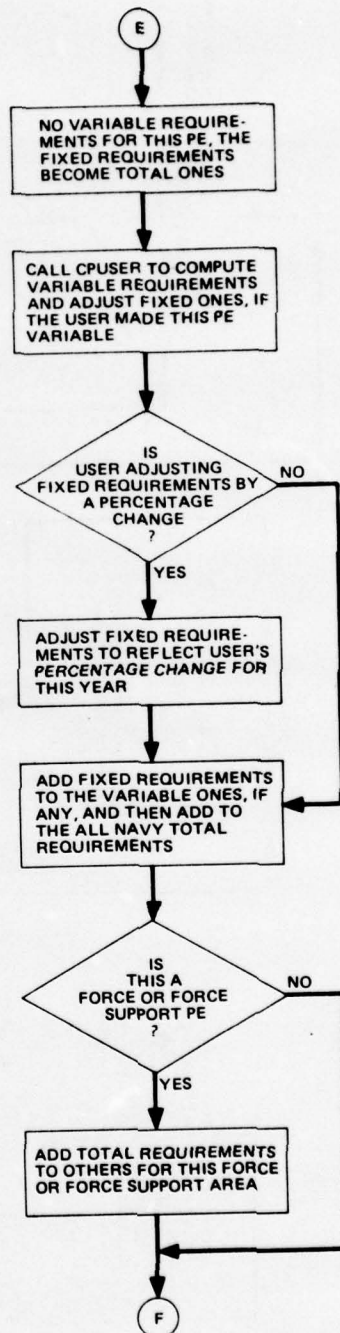
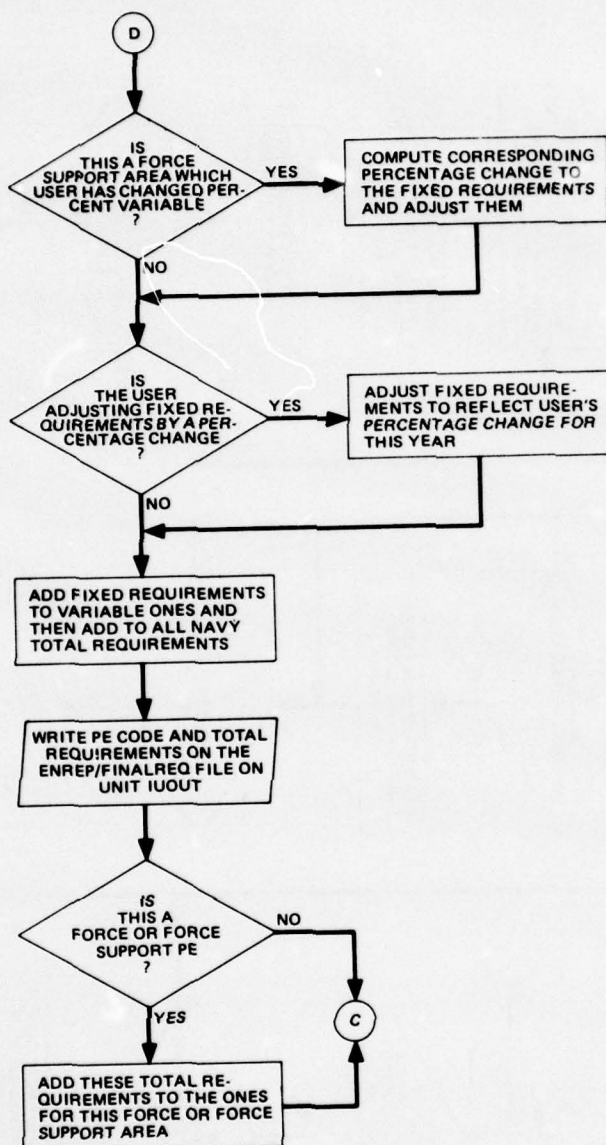


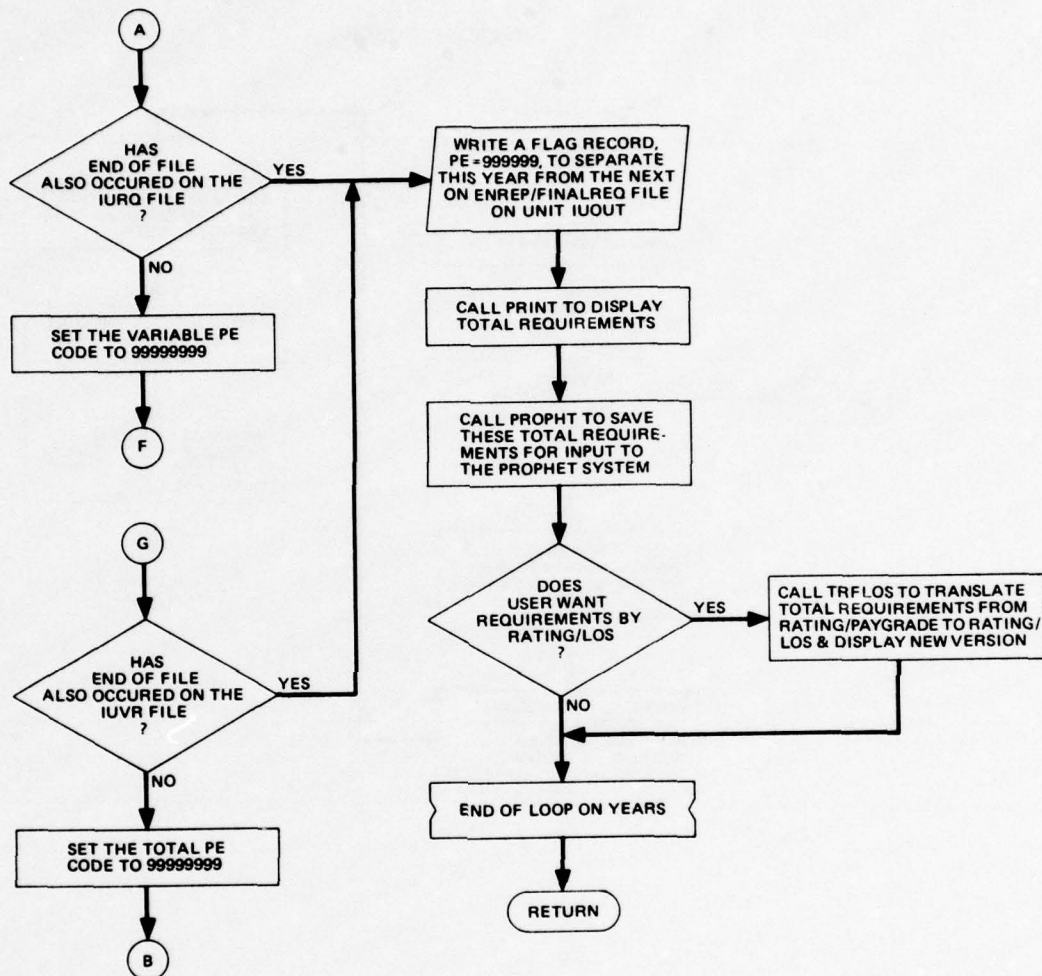
Subroutine CPPRXY



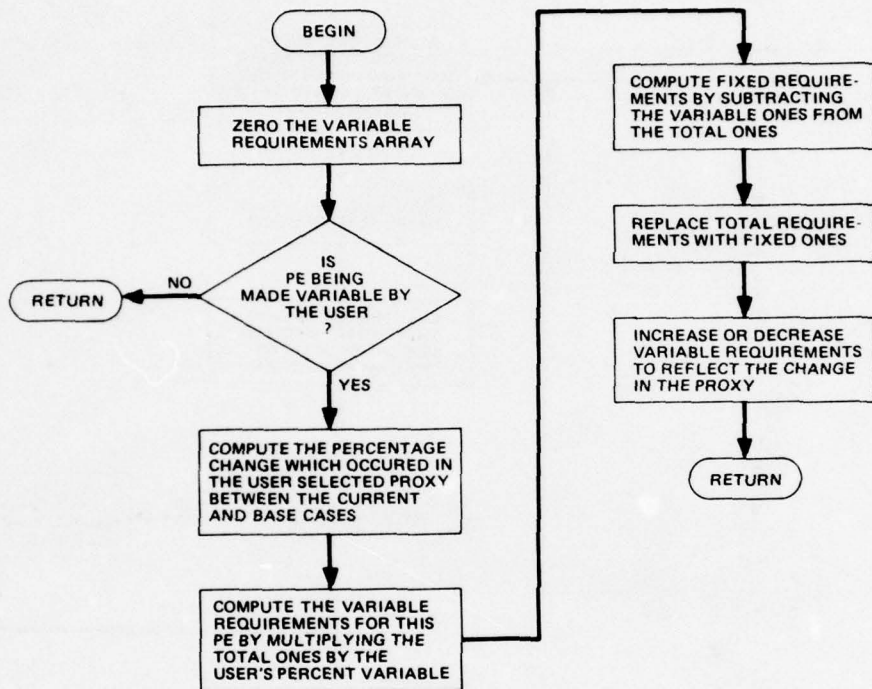

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graph TD
    C((C)) --> LoopOnYears[LOOP ON YEARS]
    LoopOnYears --> ReadRecord[READ A RECORD FROM THE INTERNAL FILE IUVR: A RECORD CONTAINS THE PE CODE AND VARIABLE REQUIREMENTS FOR THIS YEAR]
    ReadRecord --> EndOfFile1{END OF FILE ?}
    EndOfFile1 -- YES --> A((A))
    EndOfFile1 -- NO --> WasPEProcessed{WAS PREVIOUS PE CODE FROM IUVR OR IUPEA FILE PROCESSED (OR IS THIS THE 1st TIME THRU) ?}
    WasPEProcessed -- NO --> B((B))
    WasPEProcessed -- YES --> IsCurrentYear6{IS NUMBER OF THE CURRENT YEAR ≤ 6 ?}
    IsCurrentYear6 -- YES --> ReadRecord2[READ A RECORD FROM THE ENREP/FIXEDREQ FILE ON UNIT IURO. A RECORD CONTAINS THE PE CODE AND ITS FIXED REQUIREMENTS FOR THIS YEAR]
    ReadRecord2 --> IsCurrentYear6
    IsCurrentYear6 -- NO --> LoopOnYears
    ReadRecord2 --> ComparePE{COMPARE FIXED PE TO TOTAL PE ?}
    ComparePE -- SAME --> D((D))
    ComparePE -- FIXED PE > VARIABLE PE --> NoFixedReq[NO FIXED REQUIREMENTS FOR THIS VARIABLE PE. THE VARIABLE ONES BECOME TOTAL REQUIREMENTS]
    NoFixedReq --> WritePECode[WRITE PE CODE AND TOTAL REQUIREMENTS ON THE ENREP/FINALREQ FILE ON UNIT IUOUT]
    WritePECode --> AddTotalReq[ADD TOTAL REQUIREMENTS TO ALL NAVY TOTAL ONES]
    AddTotalReq --> IsForceSupport{IS THIS A FORCE OR FORCE SUPPORT PE ?}
    IsForceSupport -- YES --> AddTotalReq2[ADD THESE TOTAL REQUIREMENTS TO THE ONES FOR THIS FORCE OR FORCE SUPPORT AREA]
    AddTotalReq2 --> C
    IsForceSupport -- NO --> C((C))
    C --> IsCurrentYear6
  
```

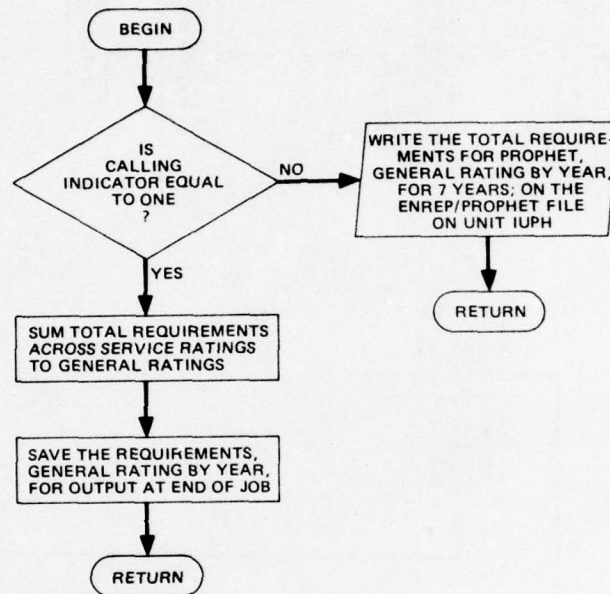




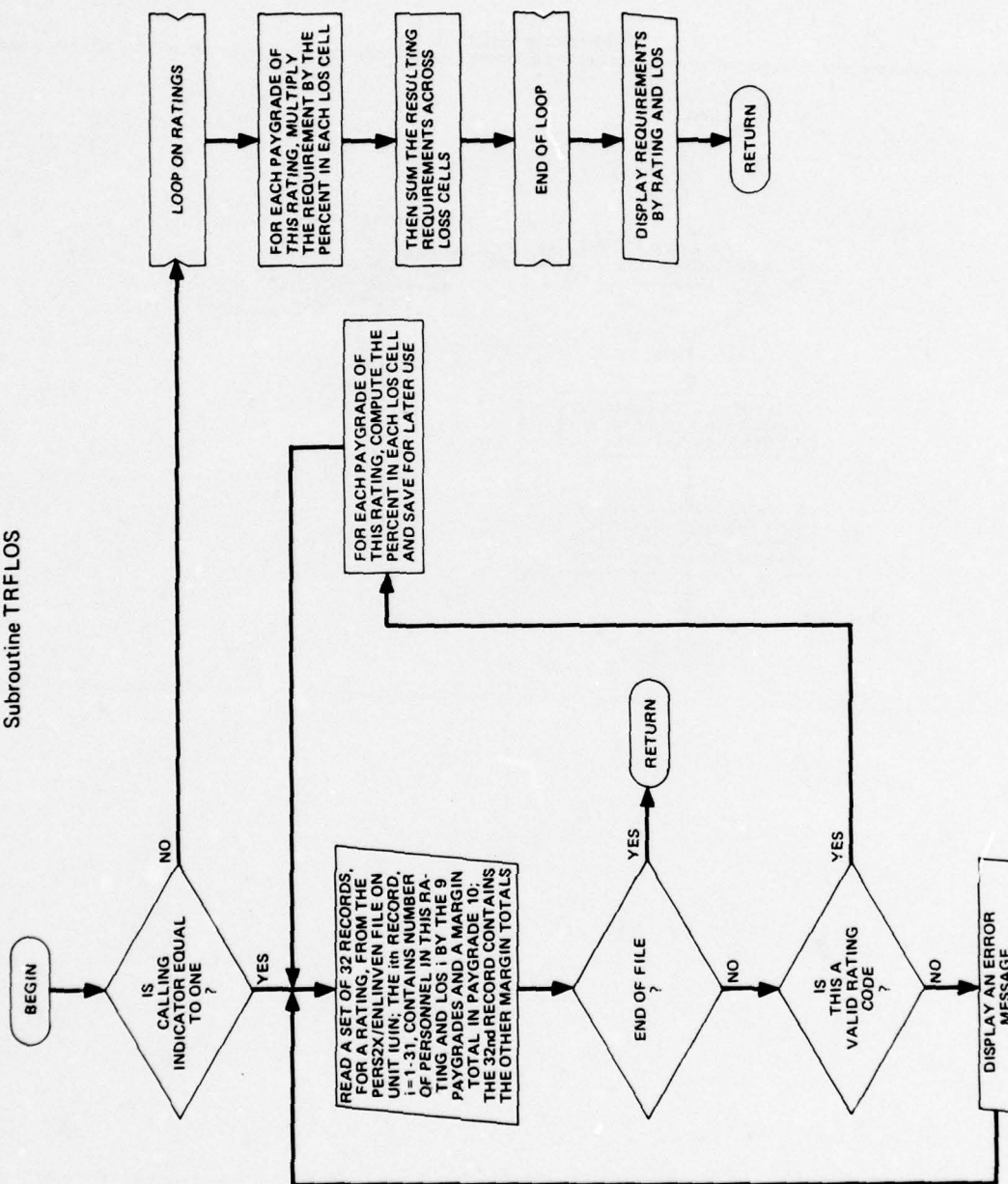
Subroutine CPUSER



Subroutine PROPHT



Subroutine TRFLOS



APPENDIX C
ILLUSTRATIVE INPUTS AND OUTPUTS

APPENDIX C

ILLUSTRATIVE INPUTS AND OUTPUTS

PRELIMINARY ROUTINES

Figure C-1 is a sample of the output of the EXTRACT routine. The printed output contains the header record of the RENLQUAL/SPECIAL file, the input and output versions of every thousandth record, and counts of the input and output records. The number of input records exceeds that of output records because the input file also contains update records, which are ignored. The user can expect approximately 350,000 records on the RENLQUAL/SPECIAL file.

Figures C-2 and C-3 are samples of the printed outputs of the FORCES routine, ship and air versions, respectively. Arbitrary numbers have been used.

Figures C-4 and C-5 are samples of inputs to the FACTORS routine. On each file, line 100 specifies whether a ship or aircraft unit requirements file is being created. The remaining lines specify quality proxies for ACT/PE/PU combinations not in the RENLQUAL file. A run of the FACTORS routine will inform the user of any combinations which are in the NARM factor file but not in the RENLQUAL file, so that the appropriate action can be taken in the second run. For example, in line 900 of figure C-4 the DD ships with ACT/PE/PU codes of 441/242922/112213 are using the quality of DD ships with ACT/PE codes of 441/242932. The PE code must be specified twice, first with the NARM convention of ending the code in a numeral, 2, and then with the RENLQUAL convention of ending the code in a letter, N. The number 1 ending the line indicates that NARM factors exist for this combination and are not being changed. In line 200 of figure C-5, the A-18 aircraft with ACT/PE/PU codes of 6705/241362/280680 are using the quality matrix of the A-7 aircraft with ACT/PE codes of 6705/241352. And on the next line the user has specified values for onboard manning, base operations, training, medical support, recruiting and examining, and individual support, in that order.

Figures C-6 and C-7 are samples of the printed outputs of the FACTORS routine and correspond to the input files of figures C-4 and C-5, respectively. FACTORS first displays the ACT/PE/PU dictionary as a convenient reference. Then it displays the user's inputs and the NARM manning factors to document the run. (Note that the onboard factors are displayed by year although they are constant across time.) As FACTORS proceeds through the creation of unit requirements matrices, it sums each matrix and displays the total, by year, with its identifying ACT/PE/PU codes. These matrix totals should equal the onboard factors.

Figure C-8 is a sample of the printed output of the SUPPORT routine. The rating totals (nonzero) by year are displayed for each PE in a force support area. Then the total for each area, by year, is displayed at the end of the job.

Figure C-9 is a sample of user input to the TOTAL routine. Line 100 specifies that the NARM PE totals are being used with the RENLQUAL quality matrices to create total requirements matrices. If line 100 contained the word "billet", the RENLQUAL file would be used unchanged. Line 200 can contain the word "yes" or the word "no" and specifies whether an output file is to be created. Line 300 can contain a list of PEs to be deleted; a blank line, as in this sample, specifies that none is being deleted in this run. Lines 400-2500 specify quality matrix proxies for PEs not in the RENLQUAL file. A run of the TOTAL routine will inform the user of any PE codes which are in the NARM file but not in the RENLQUAL file, so that the appropriate action can be taken in the second run. Each of these inputs requires two lines; the first contains the PE whose quality matrix is being used by those in the second line. In lines 400 and 500, for example, the quality matrix of PE 21118N (airborne command post, CINCPAC) is being used for PE 21117N (airborne command post, CINCEUR). Line 2600, a blank line, ends this type of input. Lastly, line 2700 can contain changes to the quality of specified PEs; a blank indicates that this option is not being used.

Figure C-10 is a sample of the printed output of the TOTAL routine. It first displays the user's inputs to document the run. As it proceeds through the computations, it displays the PE codes and their totals by year. Then, it displays the sum of all total requirements for each year.

Format specifications are well defined in the program listings of each routine.

PLANNER

Two examples will be presented. In the first, PLANNER has been executed with no use made of the input options. In the second, all options have been exercised.

Example One: No User Input Options Exercised

Figure C-11 illustrates the user's input file. Line 100 indicates that a projection will be made for six years. (The number of years specified always includes the current year.) Line 200 indicates that the total requirements will be displayed by rating and LOS in addition to the standard rating by paygrade. Line 300, a blank line, indicates that no user inputs follow. (Format specifications are well defined in the program listing.)

Figure C-12 is partial output of one year's projection. The ship and aircraft force tables are incomplete and contain arbitrary numbers to preserve the unclassified nature of this paper.

Example Two: All User Input Options Exercised

Figure C-13 illustrates the user's input file. Line 100 indicates that a projection will be made for six years. Line 200, a blank line, indicates that requirements will not be translated from paygrade to LOS. Line 300 is the key to the user inputs. The numbers in that line refer to the following inputs, respectively:

1. force updates,
2. direct manning factor updates,
3. percentage manning factor updates,
4. changes in the variable percentage of the five force support areas,
5. inputs to vary PEs not in a force or force support area, and
6. percentage changes in fixed requirements.

For types of input one through five, the corresponding number in line 300 specifies how many inputs of that type are to follow. For the sixth input type, the number is a flag; a value of 1 indicates it is being used. Note that these user inputs do not change the data base produced by the preliminary routines.

Lines 400-1100 describe the force updates for the four ACT/PE/PU combinations of 123/242972/117201 (AD-26CL), 410/242412/110602 (CVV-1CL), 6705/241352/230620 (A-7E), and 6709/242622/222408 (P-3C). The number of force units by year is contained on the line following the identification. These inputs override the force levels in the data base, or supplement the data base, for the AD-26CL ships serving in the support forces PE, the CVV-1CL ships serving in the VSTOL support ships PE, the A-7E aircraft serving in the A-7 squadrons PE, and the P-3C aircraft serving in the ASW readiness squadrons PE.

Lines 1200-1900 describe direct manning factor updates for PU/PE combinations 116901/242822 (AS-11CL) and 230620/241562 (A-7E). Lines 1200 and 1500 identify the PU/PE combinations, the first and last year affected, and the number of factors affected, respectively, for the two combinations. Following each identification line is the factor number and the new value for each factor affected. The factor names and their corresponding numbers are:

1. base operations,
2. training,

3. medical support,
4. recruiting and examining,
5. individual support, and
6. onboard manning.

The first input of this type overrides the base operations and the recruiting and examining factors for the AS-11CL ships serving in the support forces PE, for years 1978-1980. The second input updates the base operations, training, recruiting and examining, and onboard factors for the A-7E aircraft serving in the readiness squadrons PE, for years 1978-1984.

Lines 2000-3100 describe percentage manning factor updates for two groups of PU/PE combinations. Lines 2000 and 2700 identify the first and last year affected, the number of PU/PE combinations in the group, and the number of factors affected, respectively, for each input. Following these identification lines are lines which contain the PU and PE codes for each PU/PE combination in the group. Lines 2100-2200 are for the first input and lines 2800-2900 are for the second. Following these lines are lines which contain the factor number and the percentage change for each factor affected. Lines 2300-2600 are for the first input and lines 3000-3100 are for the second. The first input of this type overrides the base operations, training, medical support, and recruiting and examining factors for the LSD-28CL and LSD-36CL ships serving in the amphibious support ships PE, for years 1978-1985. The second input overrides the medical support and onboard manning factors for the EA-6B aircraft serving in the sea based electronic warfare squadrons PE and in the shore based electronic warfare squadrons PE, for years 1978-1985.

Lines 3200-3400 change the percentage of the base operations force support area that varies with forces in years 1979 and 1980. Line 3200 identifies the force support area and the number of years affected. The force support area names and their corresponding numbers are:

1. base operations,
2. training,
3. medical support,
4. recruiting and examining, and
5. individual support.

Lines 3300 and 3400 specify the year and the new variable percentage. This input makes base operations 20 percent variable in 1979 and 25 percent variable in 1980.

Lines 3500-3600 describe a group of PEs, not in a force or force support area, which the user wants to vary with the forces. Line 3500 identifies the number of PEs in the group, the percentage the group is to vary, and up to seven proxy identifiers. A proxy is any combination of the seven force and force support areas and measures changes in the variable requirements. The proxy identifiers are numbers 1-7. The numbers 1-5 identify the five force support areas as shown above, the number 6 is the ship forces, and the number 7 is the aircraft forces. The following line contains the PE code of each member of the group. This input varies two logistics PEs with the forces. The PEs will be 25 percent variable and use ship forces and base operations as a proxy.

Lastly, line 3700 contains the percentage changes in fixed requirements by year. Fixed requirements are to be increased by 2.5, 5.0, 7.5, and 9.5 percent in years 1980, 1981, 1982, and 1983, respectively.

Figure C-14 is a partial output of one year's projection.

[illegible]

FIG. C-1: SAMPLE OUTPUT OF EXTRACT

ACT NAME	ACT CODE	PE CODE	PU CODE	1978	1979	1980	1981	1982	1983
AD	123	242972	117201	8.	5.	3.	0.	0.	0.
AD	123	242972	117203	10.	0.	0.	0.	0.	0.
CGN	382	242912	111601	1.	1.	1.	1.	1.	1.
CGN	382	242912	111605	2.	6.	6.	6.	6.	6.
CV	403	241122	110205	1.	1.	1.	1.	1.	1.
CVN	407	241122	110303	1.	1.	1.	1.	1.	1.
DD	441	242932	112210	17.	18.	19.	22.	22.	22.
DD	441	242932	112212	8.	14.	15.	12.	12.	12.
SS	693	242812	110718	2.	2.	7.	7.	8.	9.
SSN	697	242812	111004	3.	2.	2.	1.	1.	1.

FIG. C-2: SAMPLE OUTPUT OF FORCES, SHIP VERSION

ACT NAME	ACT CODE	PE CODE	PU CODE	1978	1979	1980	1981	1982	1983
SH-2	6635	242432	267275	47.	49.	59.	65.	80.	85.
UH-46	6635	242622	217619	15.	15.	12.	10.	10.	10.
A-6	6705	241342	220810	25.	30.	40.	50.	55.	60.
A-7	6705	241352	230620	130.	115.	100.	85.	90.	25.
F-14	6710	241442	220210	103.	113.	115.	117.	118.	119.
EA-68	6766	241542	211820	76.	79.	71.	70.	70.	70.
EA-68	6766	241562	211820	2.	5.	15.	20.	25.	30.
EA-4	6766	244532	221632	43.	34.	30.	30.	30.	30.

FIG. C-3: SAMPLE OUTPUT OF FORCES, AIR VERSION

100	SHIP								
200	AS2	292	112222	116801	AS1	293	112222	11222N	1
300	AS2	292	242822	116801	AS1	293	242822	24282N	1
400	AS2	292	112222	116802	AS1	293	112222	11222N	1
500	AS2	292	112222	116803	AS1	293	112222	11222N	1
600	ATFR	1306	523782	128503	ATF	306	244522	24452N	1
700	CG2	384	242912	111802	CG1	381	242912	24291N	1
800	CG2	384	242912	111803	CG1	381	242912	24291N	1
900	DD	441	242922	112213	DD	441	242932	24293N	1
1000	DDR	1441	523502	122208	DD	441	523502	52350N	1
1100	DDR	1441	523502	122211	DD	441	523502	52350N	1
1200	FFG1	458	242942	112901	FFG7	457	242942	24294N	1
1300	LKAR	1558	523662	123905	LKA	558	523662	52366N	1
1400	LPAR	1559	523662	124002	LPA	559	523662	52366N	1
1500	LPAR	1559	523662	124003	LPA	559	523662	52366N	1
1600	MSR	625	243022	115401	MSQ	623	243022	24302N	1
1700	MSR	1623	523592	125601	MSQ	623	523592	52359N	1
1800	MSR	1623	523592	125602	MSQ	623	523592	52359N	1
1900	MSR	1623	523592	125603	MSQ	623	523592	52359N	1
2000	MSR	1625	523592	125401	MSQ	623	523592	52359N	1

FIG. C-4: SAMPLE INPUT TO FACTORS, SHIP RUN

100	AIR								
200	A-19	6705	241362	280630	A-7	6705	241352	24135N	
300		13	0	2	0				1

FIG. C-5: SAMPLE INPUT TO FACTORS, AIR RUN

SHIP UNIT REQUIREMENTS MATRICES ARE BEING CREATED.

ACT. CODE	PE CODE	SHIP NAME	PU CCCC
123	242972	AD	117201
123	242972	AD	117203
123	242972	AD	117205
123	242972	AD	117206
128	244412	AE	116005
128	244412	AE	116006
128	244412	AE	116007
133	244412	AF	116104
134	244412	AFS	116201
142	243132	AG	116701
142	243132	AG	116703
142	421162	AG	156701
149	245612	AGDS	116601
152	655012	AGEH	119401
158	244122	AGF	117302
159	655012	AGSS	110711
159	655012	AGSS	110713
210	244412	AC	116304
210	244412	AD	116306
210	244412	AD	116307
210	244412	AC	116308
212	244412	AOE	116401
216	244412	AOR	116501
216	244412	AOR	116502
256	244512	AR	117801
256	244512	AR	117804

FIG. C-6: SAMPLE OUTPUT OF FACTORS, SHIP RUN

NEW NAME	NEW ACT. CODE	NEW PE CODE	NEW PU CODE	PROXY NAME	PROXY ACT CODE	PROXY PF CODES
AS2	292	112222	116801	AS1	293	112222 11222N
AS2	292	112222	116802	AS1	293	112222 11222N
AS2	292	112222	116803	AS1	293	112222 11222N
AS2	292	242822	116801	AS1	293	242822 24282N
ATFR	1306	523782	128903	ATF	306	244522 24452N
CG2	384	242912	111802	CC1	381	242912 24291N
CG2	384	242912	111803	CC1	381	242912 24291N
DD	441	242922	112213	DD	441	242932 24293N
DDR	1441	523502	12220P	DD	441	523502 52350N
DDR	1441	523502	122211	DD	441	523502 52350N
FFG1	458	242942	112901	FFG7	457	242942 24294N
LKAP	1558	523662	123905	LKA	558	523662 52366N
LPAR	1559	523662	124002	LPA	559	523662 52366N
LPAR	1559	523662	124003	LPA	559	523662 52366N
MCN	623	243022	115401	MSO	623	243022 24302N
MSOR	1623	523592	125601	MSO	623	523592 52359N
MSOR	1623	523592	125602	MSO	623	523592 52359N
MSOR	1623	523592	125603	MSO	623	523592 52359N
MCHR	1623	523592	125401	MSO	623	523592 52359N

USER MANNING FACTORS
 ON-BOARD BASE CPS TRAINING MEDICAL RECRUIT INDIVIDUAL

FIG. C-6: SAMPLE OUTPUT OF FACTORS, SHIP RUN (Continued)

ONBOARD MANNING FACTORS							
NAME	PU	PE	1978	1979	1980	1981	1982
AD	117201	242972	683.	683.	683.	683.	683.
AD	117203	242972	875.	875.	875.	875.	875.
AD	117205	242972	1208.	1208.	1208.	1208.	1208.
AD	117206	242972	1015.	1015.	1015.	1015.	1015.
AE	116005	244412	315.	315.	315.	315.	315.
AE	116006	244412	312.	312.	312.	312.	312.
AE	116007	244412	335.	335.	335.	335.	335.
AFS	116201	244412	405.	405.	405.	405.	405.
AG	1167J3	243132	63.	63.	63.	63.	63.
AGDS	116601	245612	240.	240.	240.	240.	240.
AGF	117302	244122	468.	468.	468.	468.	468.
AO	116304	244412	337.	337.	337.	337.	337.
AO	116306	244412	287.	287.	287.	287.	287.
AO	116307	244412	204.	204.	204.	204.	204.
AOE	116401	244412	549.	549.	549.	549.	549.
AOR	1165J1	244412	407.	407.	407.	407.	407.
AOR	116502	244412	405.	405.	405.	405.	405.
AR	1178J1	244512	773.	773.	773.	773.	773.
AR	117804	244512	678.	678.	678.	678.	678.
ARS	118701	244522	77.	77.	77.	77.	77.
ARS	1187J2	244522	79.	79.	79.	79.	79.
AS2	1168J1	112222	1263.	1263.	1263.	1263.	1263.
AS2	1168J2	112222	1200.	1200.	1200.	1200.	1200.
AS2	116803	112222	1172.	1172.	1172.	1172.	1172.
AS2	116801	242822	1000.	1000.	1000.	1000.	1000.
AS1	116901	242822	948.	948.	948.	948.	948.

FIG. C-6: SAMPLE OUTPUT OF FACTORS, SHIP RUN (Continued)

NAME	PU	PE	ACT	BASE OPS	TRAINING	MEDICAL	RECRUIT/EXAMING	TRANSIENTS	HOLDING ACCT.
AD	117201	242972	123	13.00	29.50	13.00	5.00	30.50	8.50
AD	117203	242972	123	16.00	114.00	17.00	6.50	38.50	10.50
AD	117205	242972	123	22.50	157.50	23.50	9.00	53.00	14.50
AD	117206	242972	123	19.00	132.00	19.50	7.00	44.50	12.00
AE	116035	244412	122	6.00	41.00	6.00	2.00	14.00	4.00
AE	116066	244412	122	6.00	41.00	6.00	2.00	14.00	4.00
AE	116067	244412	122	6.00	44.00	7.00	2.00	15.00	4.00
AFS	116201	244412	134	8.00	53.00	8.00	3.00	18.00	5.00
AG	116703	243132	142	1.00	8.00	1.00	0.00	3.00	1.00
AC05	116601	245012	149	4.00	31.00	5.00	2.00	11.00	3.00
AGF	117302	244122	158	9.00	61.00	9.00	3.00	21.00	6.00
AD	115354	244412	210	5.00	44.00	7.00	2.00	15.00	4.00
AD	116306	244412	210	5.00	37.50	6.00	2.00	13.00	3.00
AD	116307	244412	210	4.00	27.00	4.00	1.00	9.00	2.00
AD	115401	244412	212	10.00	72.00	11.00	4.00	24.00	7.00
ADR	116501	244412	216	8.00	53.00	8.00	3.00	18.00	5.00
ADR	116502	244412	216	8.00	53.00	8.00	3.00	18.00	5.00
AR	117001	244512	256	14.00	100.50	15.00	5.50	34.50	9.50
AR	117004	244512	256	13.00	89.00	13.00	5.00	30.00	8.00
ARS	116701	244522	284	1.00	10.00	2.00	1.00	3.00	1.00
ARS	116702	244522	284	1.50	10.50	2.00	1.00	3.00	1.00
AS2	116801	112222	292	23.00	165.00	24.00	9.00	56.00	15.00
AS2	116802	112222	292	22.50	156.50	23.50	9.00	53.00	14.50
AS2	116803	112222	292	22.00	151.00	23.00	8.00	52.00	14.00
AS2	116801	242822	292	19.00	131.00	19.00	7.00	44.00	12.00
AS1	116901	242822	293	17.50	123.50	18.50	7.00	42.00	11.50

FIG. C-6: SAMPLE OUTPUT OF FACTORS, SHIP RUN (Continued)

RECORD NUMBER	ACTIVITY NAME	ACTIVITY CODE	PL CODE	PE CODE	1	2	3	4	5
1	1	AD	117201	242972	683.0	683.0	683.0	683.0	683.0
2	2	AD	117203	242972	874.5	874.5	874.5	874.5	374.5
3	3	AD	117205	242972	1208.0	1208.0	1208.0	1208.0	1208.0
4	4	AD	117206	242972	1015.0	1015.0	1015.0	1015.0	1015.0
5	1	AE	116005	244412	315.0	315.0	315.0	315.0	315.0
6	2	AE	116006	244412	312.0	312.0	312.0	312.0	312.0
7	3	AE	116007	244412	334.5	334.5	334.5	334.5	334.5
8	1	AFS	116201	244412	405.0	405.0	405.0	405.0	405.0
9	1	AG	116703	243132	63.0	63.0	63.0	63.0	63.0
10	1	AGDS	116601	245612	240.0	240.0	240.0	240.0	240.0
11	1	AGF	117302	244122	468.0	468.0	468.0	468.0	468.0
12	1	AO	116304	244412	337.0	337.0	337.0	337.0	337.0
13	2	AC	116306	244412	286.5	286.5	286.5	286.5	286.5
14	3	AO	116307	244412	204.0	204.0	204.0	204.0	204.0
15	1	AGE	116401	244412	549.0	549.0	549.0	549.0	549.0
16	1	ACR	116501	244412	407.0	407.0	407.0	407.0	407.0
17	2	AGR	116502	244412	405.0	405.0	405.0	405.0	405.0
18	1	AR	117801	244512	772.5	772.5	772.5	772.5	772.5
19	2	AR	117604	244512	678.0	678.0	678.0	678.0	678.0
20	1	ARS	118701	244522	77.0	77.0	77.0	77.0	77.0
21	2	ARS	118702	244522	78.5	78.5	78.5	78.5	78.5
22	1	AS2	116801	112222	1263.0	1263.0	1263.0	1263.0	1263.0
23	2	AS2	116802	112222	1200.0	1200.0	1200.0	1200.0	1200.0
24	3	AS2	116803	112222	1172.0	1172.0	1172.0	1172.0	1172.0

FIG. C-6: SAMPLE OUTPUT OF FACTORS, SHIP RUN (Continued)

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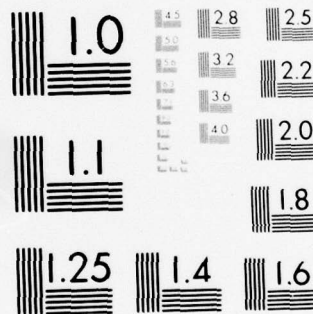
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A/C UNIT REQUIREMENTS MATRICES ARE BEING CREATED.

ACT. CODE	PE CODE	A/C NAME	PU CODE
6628	523712	HH-1	217815
6629	244532	UH-46	217616
6629	244532	UH-46	217619
6629	244532	UH-46A	217631
6629	244532	HH-3	226830
6629	244532	SH-3	227235
6629	244532	SH-3D	227250
6629	244532	CH-53E	227469
6629	244532	VH-3	228230
6629	244532	SH-3	237233
6629	244532	CH-46	277613
6629	523752	HH-3	226830
6631	242332	SH-3	227235
6631	242332	SH-3	227250
6631	242332	SH-3	227251
6631	242622	SH-3	227235
6631	242622	SH-3	227250
6631	242622	SH-3	227251
6631	242622	RH-53X	227499
6631	523322	SH-3	227235
6631	523322	SH-3	227250
6631	523322	SH-3	237233
6632	243032	CH-53E	227465
6632	243032	RH-53X	227499
6635	242432	SH-2	267275
6635	242432	HSX(L)	277249

FIG. C-7: SAMPLE OUTPUT OF FACTORS, AIR RUN

NEW NAME	NEW ACT. CODE	NEW PE CODE	NEW PU CODE	PROXY NAME	PROXY ACT CODE	PROXY PF CODES
A-18	6705	241362	280680	A-7	6705	241352 24135N

USER MANNING FACTORS						
ON-BOARD	BASE	CPS	TRAINING	MEDICAL	RECRUIT	INDIVIDUAL
18.	0.	2.	0.	0.	1.	

FIG. C-7: SAMPLE OUTPUT OF FACTORS, AIR RUN (Continued)

ONBOARD MANNING FACTORS			1978	1979	1980	1981	1982
NAME	PU	PE					
HH-1	217615	523712	5.	5.	5.	5.	5.
UH-46	217616	244532	15.	15.	15.	15.	15.
UH-46	217619	244532	15.	15.	15.	15.	15.
HH-3	226830	244532	17.	17.	17.	17.	17.
SH-3	227235	244532	17.	17.	17.	17.	17.
CH-53E	227469	244532	22.	22.	22.	22.	22.
VH-3	228230	244532	16.	16.	16.	16.	16.
SH-3	237233	244532	20.	20.	20.	20.	20.
CH-46	277613	244532	15.	15.	15.	15.	15.
HH-3	226830	523792	10.	10.	10.	10.	10.
SH-3	227235	242332	21.	21.	21.	21.	21.
SH-3	227250	242332	24.	24.	24.	24.	24.
SH-3	227251	242332	24.	24.	24.	24.	24.
SH-3	227235	242622	14.	14.	14.	14.	14.
SH-3	227250	242622	14.	14.	14.	14.	14.
SH-3	227251	242622	15.	15.	15.	15.	15.
SH-3	227235	523322	6.	6.	6.	6.	6.
SH-3	227250	523322	9.	9.	9.	9.	9.
SH-3	237233	523322	6.	6.	6.	6.	6.
CH-53E	227485	243332	23.	23.	23.	23.	23.
SH-2	267275	242432	12.	12.	12.	12.	12.
HSX(L)	277249	242432	12.	12.	12.	12.	12.
UH-46	217615	242622	15.	15.	15.	15.	15.
UH-46	217631	242622	15.	15.	15.	15.	15.
CH-53E	227465	242622	22.	22.	22.	22.	22.
CH-53E	227485	242622	26.	26.	26.	26.	26.

FIG. C-7: SAMPLE OUTPUT OF FACTORS, AIR RUN (Continued)

NAME	PU	PC	ACI	BASE OPS	TRAINING	MEDICAL	RECRUIT/EXAMING	TRANSIENTS	HOLDING ACCT.
NH-1	217815	523112	6628	0.00	1.00	0.00	0.00	0.00	0.00
UH-46	217616	244532	6629	0.00	2.00	0.00	0.00	1.00	0.00
UH-46	217619	244532	6629	0.00	2.00	0.00	0.00	1.00	0.00
NH-3	226830	244532	6629	0.00	2.00	0.00	0.00	1.00	0.00
SH-3	227235	244532	6629	0.00	2.00	0.00	0.00	1.00	0.00
CH-53E	227465	244532	6629	0.00	3.00	0.00	0.00	1.00	0.00
NH-3	228230	244532	6629	0.00	2.00	0.00	0.00	1.00	0.00
SH-3	237233	244532	6629	0.00	3.00	0.00	0.00	1.00	0.00
CH-46	277615	244532	6629	0.00	2.00	0.00	0.00	1.00	0.00
NH-3	226830	523792	6629	0.00	1.00	0.00	0.00	0.00	0.00
SH-3	227235	242332	6631	0.00	3.00	0.00	0.00	1.00	0.00
SH-3	227250	242332	6631	0.00	3.00	1.00	0.00	1.00	0.00
SH-3	227251	242332	6631	0.00	3.00	1.00	0.00	1.00	0.00
SH-3	227235	242622	6631	0.00	7.00	0.00	0.00	1.00	0.00
SH-3	227251	242622	6631	0.00	7.00	0.00	0.00	1.00	0.00
SH-3	227235	523322	6631	0.00	1.00	0.00	0.00	0.00	0.00
SH-3	227250	523322	6631	0.00	1.00	0.00	0.00	0.00	0.00
SH-3	237233	523322	6631	0.00	1.00	0.00	0.00	0.00	0.00
CH-53E	227465	243032	6632	0.00	3.00	0.00	0.00	1.00	0.00
SH-2	267275	242432	6635	0.00	2.00	0.00	0.00	1.00	0.00
MSL	277245	242432	6635	0.00	2.00	0.00	0.00	1.00	0.00
UH-46	217615	242622	6635	0.00	2.00	0.00	0.00	1.00	0.00
UH-46	217631	242622	6635	0.00	8.00	0.00	0.00	1.00	0.00
CH-53E	227465	242622	6635	0.00	11.00	1.00	0.00	1.00	0.00
CH-53E	227465	242622	6635	1.00	13.00	1.00	0.00	2.00	0.00

FIG. C-7: SAMPLE OUTPUT OF FACTORS, AIR RUN (Continued)

RECORD NUMBER	ACTIVITY NAME	ACTIVITY CODE	PU CODE	PE CODE	1	2	3	4	5
1	1	HM-1	6628	217815	523712	5.0	5.0	5.0	5.0
2	1	UH-46	6629	217816	244532	15.0	15.0	15.0	15.0
3	2	UH-46	6629	217819	244532	15.0	15.0	15.0	15.0
4	3	HM-3	6629	226830	244532	17.0	17.0	17.0	17.0
5	4	SH-3	6629	227235	244532	17.0	17.0	17.0	17.0
6	5	CH-53E	6629	227469	244532	22.0	22.0	22.0	22.0
7	6	VH-3	6629	226230	244532	16.0	16.0	16.0	16.0
8	7	SH-3	6629	237233	244532	20.0	20.0	20.0	20.0
9	8	CH-46	6629	277613	244532	15.0	15.0	15.0	15.0
10	1	HM-3	6629	226230	523792	10.0	10.0	10.0	10.0
11	1	SH-3	6631	227235	242332	21.0	21.0	21.0	21.0
12	2	SH-3	6631	227250	242332	24.0	24.0	24.0	24.0
13	3	SH-3	6631	227251	242332	24.0	24.0	24.0	24.0
14	1	SH-3	6631	227235	242622	14.0	14.0	14.0	14.0
15	2	SH-3	6631	227250	242622	14.0	14.0	14.0	14.0
16	3	SH-3	6631	227251	242622	15.0	15.0	15.0	15.0
17	1	SH-3	6631	227235	523322	6.0	6.0	6.0	6.0
18	2	SH-3	6631	227250	523322	9.0	9.0	9.0	9.0
19	3	SH-3	6631	237233	523322	6.0	6.0	6.0	6.0
20	1	CH-53E	6632	227485	243032	23.0	23.0	23.0	23.0
21	1	SH-2	6635	267275	242432	12.0	12.0	12.0	12.0
22	2	MSX(L)	6635	277249	242432	12.0	12.0	12.0	12.0
23	1	UH-46	6635	217619	242622	15.0	15.0	15.0	15.0
24	2	UH-46	6635	217631	242622	15.0	15.0	15.0	15.0
25	3	CH-53E	6635	227469	242622	22.0	22.0	22.0	22.0
26	4	CH-53E	6635	227485	242622	26.0	26.0	26.0	26.0

FIG. C-7: SAMPLE OUTPUT OF FACTORS, AIR RUN (Continued)

E4742A TAAIPING

RATING		YEARS				
		1978	1979	1980	1981	1982
BM	0100	13.	13.	13.	13.	13.
BM	0200	1.	1.	1.	1.	1.
SM	0250	2.	2.	2.	2.	2.
US	0300	1.	1.	1.	1.	1.
GMC	0604	6.	6.	6.	6.	6.
ET	1000	9.	9.	9.	9.	9.
ETN	1001	12.	12.	12.	12.	12.
ETI	1002	18.	18.	18.	18.	18.
YN	1700	50.	50.	49.	49.	49.
PN	1800	14.	14.	15.	15.	15.
SK	2000	5.	5.	5.	5.	5.
MS	2200	1.	2.	3.	3.	3.
SH	2400	1.	1.	1.	1.	1.
PC	2700	1.	1.	1.	1.	1.
DM	3200	1.	1.	1.	1.	1.
EN	3600	12.	12.	12.	12.	12.
MR	3900	2.	2.	2.	2.	2.
EM	4100	6.	6.	6.	6.	6.
HT	4300	5.	5.	5.	5.	5.
AF	6000	5.	5.	5.	5.	5.
AV	6100	2.	2.	2.	2.	2.
AD	6200	208.	220.	219.	218.	218.
AT	6300	80.	80.	80.	80.	80.
AO	6500	10.	10.	10.	10.	10.
AO	6520	14.	14.	14.	14.	14.
AO	6600	61.	65.	65.	65.	65.
AB	6700	1.	1.	1.	1.	1.
ABE	6704	16.	22.	23.	23.	23.
ABF	6705	2.	2.	2.	2.	2.
ABH	6706	31.	34.	34.	34.	34.
AE	6800	90.	94.	94.	94.	94.
AM	6900	1.	1.	1.	1.	1.
AMS	6901	91.	96.	96.	96.	96.
AMH	6902	71.	71.	71.	71.	71.
AME	6903	44.	46.	46.	46.	46.
PH	7000	38.	38.	38.	38.	38.
TD	7200	73.	75.	75.	75.	75.
AM	7300	25.	25.	25.	25.	25.
AS	7500	8.	8.	9.	8.	8.
ASE	7501	11.	11.	11.	11.	11.
ASH	7502	13.	13.	13.	13.	13.
ASM	7503	5.	5.	5.	5.	5.
AZ	7400	44.	44.	43.	44.	44.
PH	7600	17.	19.	19.	19.	19.
HM	8000	3.	3.	3.	3.	3.
SA	3600	17.	17.	17.	17.	17.
AN	7800	75.	75.	77.	77.	77.
PE TOTAL		1216.	1259.	1259.	1259.	1259.
RUNING TOTAL		84335.	83589.	85537.	85678.	84678.

FIG. C-8: SAMPLE OUTPUT OF SUPPORT

SUPPORT AREA	YEAR				
	1	2	3	4	5
BASE OPS	29985.	30061.	30569.	30661.	30754.
TRAINING	93316.	92344.	94231.	94641.	93311.
MEDICAL	14684.	14650.	14735.	14755.	14755.
RECRUIT + EXAMING	5014.	5014.	5014.	5014.	5014.
INDIVIDUAL	25708.	26361.	26294.	26204.	25634.

FIG. C-8: SAMPLE OUTPUT OF SUPPORT (Continued)

100	NAHM				
200	YES				
300					
400	21113N				
500	21117N				
600	35128N				
700	35160N				
800	35809N				
900	35807N	35805N			
1000	52371N				
1100	52373N				
1200	59523N				
1300	59498N				
1400	83736N				
1500	84702N	84703N	84704N	84705N	84706N
1600	85796N				
1700	85704N	85705N			
1800	88733N				
1900	88721N				
2000	89712N				
2100	89703N				
2200	89731N				
2300	89730N				
2400	88732N				
2500	88721N	88722N			
2600					
2700					

FIG. C-9: SAMPLE INPUT TO TOTAL

THE FOLLOWING MATRIX IS BEING COMPUTED:

NARM SCALED

THE FOLLOWING PERMANENT FILE IS BEING CREATED:

NARM SCALED

ALL PROGRAM ELEMENTS ARE BEING INCLUDED IN THE MATRIX.

THE FOLLOWING PROGRAM ELEMENTS ARE USING THE BILLET DATA OF PE 21118N:

21117N

THE FOLLOWING PROGRAM ELEMENTS ARE USING THE BILLET DATA OF PE 35128N:

35160N

THE FOLLOWING PROGRAM ELEMENTS ARE USING THE BILLET DATA OF PE 35809N:

35807N

35805N

THE FOLLOWING PROGRAM ELEMENTS ARE USING THE BILLET DATA OF PE 52371N:

52373N

THE FOLLOWING PROGRAM ELEMENTS ARE USING THE BILLET DATA OF PE 59523N:

59498N

THE FOLLOWING PROGRAM ELEMENTS ARE USING THE BILLET DATA OF PE 83736N:

84702N

84703N

84704N

84705N

84706N

THE FOLLOWING PROGRAM ELEMENTS ARE USING THE BILLET DATA OF PE 85796N:

85704N

85705N

THE FOLLOWING PROGRAM ELEMENTS ARE USING THE BILLET DATA OF PE 88733N:

88721N

THE FOLLOWING PROGRAM ELEMENTS ARE USING THE BILLET DATA OF PE 89712N:

FIG. C-10: SAMPLE OUTPUT OF TOTAL

89703N

THE FOLLOWING PROGRAM ELEMENTS ARE USING THE BILLET DATA OF PE 89731N:

89730N

THE FOLLOWING PROGRAM ELEMENTS ARE USING THE BILLET DATA OF PE 88732N:

88721N

88722N

NO CHANGES TO THE BILLET FILE QUALITY MIX ARE BEING MADE.

FIG. C-10: SAMPLE OUTPUT OF TOTAL (Continued)

72319N	56.	56.	56.	56.	56.	56.	56.
72312N	321.	320.	320.	321.	321.	321.	321.
72314N	20.	20.	20.	20.	20.	20.	20.
72315N	240.	234.	234.	234.	234.	234.	234.
72316N	29.	28.	28.	28.	28.	28.	28.
72317N	255.	263.	275.	279.	279.	279.	279.
72318N	20.	20.	20.	20.	20.	20.	20.
81711N	75.	72.	72.	72.	72.	72.	72.
81711N	4662.	4661.	4661.	4661.	4661.	4661.	4661.
81713N	342.	342.	342.	342.	342.	342.	342.

THERE IS NO ENTRY IN THE FILE OF NARM REQUIREMENTS CORRESPONDING TO PE 83736N.

84732N	2541.	3199.	3646.	3574.	3548.	3495.	3445.
84733N	125.	128.	168.	168.	175.	175.	175.
84734N	11.	11.	11.	11.	11.	11.	11.
84735N	7330.	8671.	8931.	8665.	8500.	8450.	8362.
84736N	15.	15.	18.	18.	18.	18.	18.
84711N	2.	2.	2.	2.	2.	2.	2.
84711N	13833.	13643.	12262.	12727.	13431.	12974.	15344.
84721N	509.	513.	514.	514.	514.	514.	514.
84722N	375.	375.	375.	464.	496.	496.	496.
84723N	184.	195.	192.	192.	192.	192.	192.
84724N	1010.	490.	310.	205.	95.	5.	5.
84731N	35.	35.	35.	35.	35.	35.	35.
84731N	29926.	34289.	32794.	33986.	34153.	33539.	33093.
84733N	119.	120.	120.	119.	119.	119.	119.
84734N	1239.	1628.	1605.	1582.	1521.	1440.	1392.
84741N	5773.	5248.	3894.	3847.	3883.	3847.	3847.
84742N	1247.	1312.	1353.	1353.	1353.	1353.	1353.
84743N	1375.	1377.	3.	3.	3.	3.	3.
84751N	14.	14.	14.	14.	14.	14.	14.
84751N	100.	100.	84.	84.	84.	84.	84.
84752N	167.	147.	147.	147.	147.	147.	147.

FIG. C-10: SAMPLE OUTPUT OF TOTAL (Continued)

REQUIREMENTS FOR ALL NAVY IN YEAR 1980.

(BILLET REQUIREMENTS SCALED BY NARM REQUIREMENTS)

RATING	E-9	E-8	E-7	E-6	PAYGRADE	E-5	E-4	E-3	E-2	E-1	RATING TOTAL
SA 0100	164.	306.	1270.	2061.	2594.	2795.	287.	0.	0.	0.	9491.
MA 0150	43.	90.	293.	515.	0.	0.	0.	0.	0.	0.	968.
SA 0200	67.	115.	705.	874.	867.	1030.	283.	0.	0.	0.	3901.
SA 0250	23.	53.	237.	624.	773.	895.	602.	0.	0.	0.	3207.
SA 0300	89.	210.	590.	1523.	1775.	2184.	2262.	0.	0.	0.	9597.
SA 0350	9.	47.	220.	359.	566.	403.	278.	0.	0.	0.	1921.
SA 0400	59.	0.	0.	0.	0.	0.	0.	0.	0.	0.	59.
SA 0450	0.	113.	307.	812.	973.	1060.	702.	0.	0.	0.	3966.
SA 0500	0.	160.	249.	537.	662.	900.	162.	0.	0.	0.	2848.
SA 0550	14.	37.	110.	244.	349.	359.	218.	0.	0.	0.	1372.
SA 0600	76.	84.	353.	744.	1046.	1134.	318.	0.	0.	0.	3796.
SA 0650	56.	130.	0.	0.	0.	0.	0.	0.	0.	0.	194.
SA 0700	0.	0.	130.	337.	359.	337.	170.	0.	0.	0.	1354.
SA 0750	12.	47.	151.	410.	517.	547.	184.	0.	0.	0.	1946.
SA 0800	0.	0.	449.	916.	1229.	997.	657.	0.	0.	0.	4270.
SA 0850	167.	336.	0.	0.	0.	0.	0.	0.	0.	0.	503.
SA 0900	0.	0.	467.	753.	875.	753.	147.	0.	0.	0.	3216.
SA 0950	0.	0.	301.	815.	867.	1221.	131.	0.	0.	0.	3535.
SA 1000	7.	0.	104.	232.	296.	314.	0.	0.	0.	0.	926.
SA 1050	0.	0.	160.	405.	615.	619.	0.	0.	0.	0.	2068.
SA 1100	13.	24.	45.	118.	125.	171.	49.	0.	0.	0.	515.
SA 1150	170.	394.	1394.	3241.	0.	0.	0.	0.	0.	0.	5213.
SA 1200	0.	0.	0.	0.	2532.	2649.	521.	0.	0.	0.	3741.
SA 1250	0.	0.	181.	510.	727.	2379.	281.	0.	0.	0.	4953.
SA 1300	12.	45.	0.	0.	0.	701.	16.	0.	0.	0.	2231.
SA 1350	7.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.
SA 1400	0.	14.	44.	112.	143.	126.	28.	0.	0.	0.	468.
SA 1450	0.	8.	37.	16.	67.	65.	15.	0.	0.	0.	308.
SA 1500	38.	95.	331.	549.	0.	0.	0.	0.	0.	0.	1051.
SA 1550	151.	429.	1355.	2755.	4190.	4956.	3166.	0.	0.	0.	14951.
SA 1600	15.	43.	164.	415.	407.	447.	222.	0.	0.	0.	1703.
SA 1650	26.	49.	105.	211.	274.	194.	102.	0.	0.	0.	928.
SA 1700	16.	34.	140.	345.	700.	589.	0.	0.	0.	0.	1858.
SA 1750	24.	59.	144.	266.	387.	471.	251.	0.	0.	0.	1570.
SA 1800	13.	17.	195.	312.	421.	570.	403.	0.	0.	0.	2305.
SA 1850	116.	319.	104.	228.	501.	184.	74.	0.	0.	0.	923.
SA 1900	0.	0.	1260.	2457.	2915.	2984.	1435.	0.	0.	0.	12005.
SA 1950	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SA 2000	12.	23.	77.	120.	170.	0.	0.	0.	0.	0.	420.
SA 2050	115.	205.	615.	1574.	1741.	1331.	972.	0.	0.	0.	6753.
SA 2100	30.	57.	274.	605.	796.	851.	501.	0.	0.	0.	3112.
SA 2150	159.	317.	1121.	1846.	2357.	2194.	920.	0.	0.	0.	4916.
SA 2200	16.	53.	151.	706.	570.	415.	277.	0.	0.	0.	2162.
SA 2250	138.	295.	1125.	1537.	4165.	4394.	3334.	0.	0.	0.	16841.
SA 2300	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SA 2350	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SA 2400	13.	26.	164.	321.	12376.	236.	104.	0.	0.	0.	11194.
SA 2450	76.	125.	292.	1050.	1291.	1452.	1046.	0.	0.	0.	5343.
SA 2500	7.	25.	83.	112.	193.	233.	42.	0.	0.	0.	716.
SA 2550	15.	13.	42.	42.	260.	434.	144.	0.	0.	0.	1047.
SA 2600	2.	6.	30.	70.	120.	153.	62.	0.	0.	0.	453.
SA 2650	1.	3.	20.	46.	126.	80.	22.	0.	0.	0.	337.
SA 2700	24.	41.	96.	148.	177.	287.	85.	0.	0.	0.	499.
SA 2750	161.	790.	1445.	5007.	5630.	6995.	1144.	0.	0.	0.	21974.
SA 2800	109.	176.	761.	1651.	1944.	1939.	620.	0.	0.	0.	7239.

FIG C-10: SAMPLE OUTPUT OF TOTAL (Continued)

BT 4300	150.	241.	0.	150.	1755.	101.	055.	100.	0.	0.	2409.
BT 4309	150.	0.	0.	790.	0.	2361.	2724.	1760.	0.	0.	9970.
BT 4310	175.	325.	0.	0.	0.	0.	0.	0.	0.	0.	0.
BT 4311	0.	0.	0.	1090.	2363.	2798.	3729.	1069.	0.	0.	11548.
BT 4312	0.	61.	0.	465.	1156.	1591.	1790.	600.	0.	0.	5704.
BT 4313	0.	283.	0.	1029.	2217.	2835.	3051.	806.	0.	0.	10389.
BT 4314	0.	0.	0.	17.	45.	37.	14.	3.	0.	0.	130.
BT 4315	0.	0.	0.	24.	41.	47.	44.	9.	0.	0.	174.
BT 4316	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
BT 4317	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
BT 4318	0.	0.	0.	22.	14.	49.	77.	41.	0.	0.	41.
BT 4319	0.	0.	0.	104.	249.	397.	324.	171.	0.	0.	313.
BT 4320	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1268.
BT 4321	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	37.
BT 4322	0.	0.	0.	130.	357.	440.	490.	340.	0.	0.	1791.
BT 4323	0.	0.	0.	103.	279.	362.	362.	197.	0.	0.	1329.
BT 4324	0.	0.	0.	223.	453.	649.	601.	430.	0.	0.	2621.
BT 4325	0.	0.	0.	78.	167.	173.	225.	143.	0.	0.	816.
BT 4326	0.	0.	0.	78.	216.	363.	300.	154.	0.	0.	1186.
BT 4327	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	372.
BT 4328	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	297.
BT 4329	0.	0.	0.	1020.	2525.	2855.	3435.	2379.	0.	0.	12696.
BT 4330	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
BT 4331	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
BT 4332	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
BT 4333	0.	0.	0.	839.	2157.	3659.	3664.	1457.	0.	0.	11915.
BT 4334	0.	0.	0.	184.	480.	626.	590.	184.	0.	0.	2134.
BT 4335	0.	0.	0.	295.	605.	758.	721.	479.	0.	0.	3003.
BT 4336	0.	0.	0.	452.	1119.	1417.	1549.	1387.	0.	0.	6091.
BT 4337	0.	0.	0.	251.	670.	922.	986.	398.	0.	0.	3388.
BT 4338	0.	0.	0.	254.	655.	836.	750.	237.	0.	0.	2824.
BT 4339	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	154.
BT 4340	0.	0.	0.	110.	219.	334.	460.	423.	0.	0.	1545.
BT 4341	0.	0.	0.	131.	203.	317.	456.	327.	0.	0.	1655.
BT 4342	0.	0.	0.	196.	411.	571.	859.	602.	0.	0.	2659.
BT 4343	0.	0.	0.	581.	1659.	2689.	2257.	1462.	0.	0.	2850.
BT 4344	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	366.
BT 4345	0.	0.	0.	555.	1360.	1805.	1818.	1887.	0.	0.	7424.
BT 4346	0.	0.	0.	424.	1125.	1414.	2085.	1331.	0.	0.	6370.
BT 4347	0.	0.	0.	162.	535.	683.	670.	591.	0.	0.	2642.
BT 4348	0.	0.	0.	55.	329.	556.	503.	255.	0.	0.	1769.
BT 4349	0.	0.	0.	152.	358.	376.	502.	109.	0.	0.	1556.
BT 4350	0.	0.	0.	145.	501.	669.	590.	132.	0.	0.	2094.
BT 4351	0.	0.	0.	318.	714.	1036.	1109.	724.	0.	0.	4015.
BT 4352	0.	0.	0.	116.	348.	0.	0.	0.	0.	0.	519.
BT 4353	0.	0.	0.	0.	0.	185.	205.	111.	0.	0.	504.
BT 4354	0.	0.	0.	0.	0.	165.	174.	112.	0.	0.	451.
BT 4355	0.	0.	0.	239.	603.	767.	800.	178.	0.	0.	735.
BT 4356	0.	0.	0.	138.	346.	495.	461.	615.	0.	0.	3201.
BT 4357	0.	0.	0.	0.	0.	0.	0.	166.	0.	0.	1658.
BT 4358	0.	0.	0.	1662.	3018.	4351.	5206.	8008.	0.	625.	23470.
BT 4359	0.	0.	0.	168.	369.	586.	812.	1281.	0.	75.	3402.
BT 4360	0.	0.	0.	0.	0.	0.	0.	46263.	0.	5806.	53089.
BT 4361	0.	0.	0.	0.	0.	0.	0.	18528.	0.	2984.	21512.
BT 4362	0.	0.	0.	0.	0.	0.	0.	471.	0.	348.	821.
BT 4363	0.	0.	0.	0.	0.	0.	0.	15715.	0.	3410.	19125.
PAYGRADE	4169.	9234.	31330.	71651.	102855.	98853.	135025.	0.	14248.	467365.	
TOTAL											

FIG. C-10: SAMPLE OUTPUT OF TOTAL (Continued)

100	6	PROJECT
200	LOS	
300		

FIG. C-11: SAMPLE INPUT TO PLANNER, NO OPTIONS USED

PROJECTION RUN OF THE PLANNER MODEL

ENLISTED REQUIREMENTS WILL BE COMPUTED FOR 6 YEARS

REQUIREMENTS ARE BEING TRANSFORMED FROM RATING/PAYGRADE TO FATING/LCS

SHIP NAME	ACT CODE	PE CODE	PU CODE	1978	1979	1980	1981	1982	1983
AD	123	242972	117201	8.	5.	3.	0.	0.	0.
AD	123	242972	117203	10.	0.	0.	0.	0.	0.
CGN	382	242912	111601	1.	1.	1.	1.	1.	1.
CGN	382	242912	111605	2.	6.	6.	6.	6.	6.
CV	403	241122	110205	1.	1.	1.	1.	1.	1.
CVN	407	241122	110303	1.	1.	1.	1.	1.	1.
DD	441	242932	112210	17.	18.	19.	22.	22.	22.
DD	441	242932	112212	8.	14.	15.	12.	12.	12.
SS	693	242812	110918	2.	2.	7.	7.	8.	9.
SSN	697	242812	111004	3.	2.	2.	1.	1.	1.
AIR NAME	ACT CODE	PE CODE	PU CODE	1978	1979	1980	1981	1982	1983
SH-2	6635	242432	267275	47.	49.	59.	65.	60.	65.
UH-46	6635	242022	217619	15.	15.	12.	10.	10.	10.
A-6	6705	241342	220810	25.	30.	40.	50.	55.	60.
A-7	6705	241352	230620	130.	115.	100.	65.	50.	25.
F-14	6710	241442	220210	103.	113.	115.	117.	118.	119.
EA-6B	6766	241542	211820	76.	79.	71.	70.	70.	70.
EA-6B	6766	241562	211820	2.	5.	15.	20.	25.	30.
EA-4	6766	244532	221632	43.	34.	30.	30.	30.	30.

FIG. C-12: SAMPLE OUTPUT OF PLANNER, NO OPTIONS USED

VARIABLE ENLISTED REQUIREMENTS FOR FY1979
TRAINING SUPPORT

RATING	E-9	E-8	E-7	E-6	PAYGRADE	E-5	E-4	E-3	E-2	E-1	RAISING TOTAL
GM 0100	11.	16.	63.	82.	77.	25.	2.	0.	0.	276.	
MA 0150	3.	7.	16.	31.	0.	0.	0.	0.	0.	58.	
QM 0200	2.	4.	43.	30.	19.	11.	4.	0.	0.	114.	
SM 0250	0.	3.	16.	35.	26.	2.	3.	0.	0.	85.	
OS 0300	5.	11.	33.	127.	49.	36.	13.	0.	0.	335.	
EN 0350	2.	3.	31.	71.	49.	2.	0.	0.	0.	158.	
ST 0400	7.	6.	0.	0.	0.	0.	0.	0.	0.	7.	
STG 0401	0.	6.	49.	105.	53.	92.	0.	0.	0.	305.	
STG 0404	0.	10.	45.	95.	44.	92.	0.	0.	0.	275.	
OT 0450	0.	1.	3.	11.	4.	1.	0.	0.	0.	21.	
IM 0500	3.	6.	30.	41.	13.	49.	6.	0.	0.	149.	
GM 0600	3.	12.	0.	0.	0.	0.	0.	0.	0.	17.	
GMH 0601	0.	0.	9.	30.	16.	0.	0.	0.	0.	55.	
GMH 0602	1.	4.	22.	28.	4.	0.	0.	0.	0.	51.	
GMG 0604	0.	0.	40.	125.	43.	20.	0.	0.	0.	229.	
FT 0800	10.	35.	0.	0.	0.	0.	0.	0.	0.	45.	
FTG 0801	0.	0.	57.	110.	61.	28.	4.	0.	0.	259.	
FTH 0802	0.	0.	51.	109.	35.	104.	2.	0.	0.	301.	
FTH 0803	0.	0.	15.	32.	21.	49.	0.	0.	0.	117.	
MT 0810	0.	0.	22.	51.	33.	83.	0.	0.	0.	190.	
MM 0900	0.	1.	6.	3.	1.	4.	0.	0.	0.	16.	
ET 1000	17.	36.	189.	391.	0.	0.	0.	0.	0.	635.	
ETM 1001	0.	0.	0.	0.	132.	221.	9.	0.	0.	362.	
ETM 1002	0.	0.	0.	0.	165.	451.	21.	0.	0.	637.	
DS 1010	3.	2.	27.	83.	60.	84.	0.	0.	0.	259.	
PPI 1020	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
IM 1100	0.	1.	7.	6.	5.	0.	0.	0.	0.	20.	
DM 1200	0.	0.	5.	1.	1.	0.	0.	0.	0.	12.	
MC 1400	0.	0.	1.	0.	0.	0.	0.	0.	0.	2.	
MY 1500	4.	10.	63.	108.	98.	52.	35.	0.	0.	376.	
CTT 1611	0.	1.	3.	5.	2.	2.	0.	0.	0.	14.	
CTA 1622	0.	0.	1.	1.	0.	0.	0.	0.	0.	4.	
CFM 1633	0.	0.	4.	5.	2.	18.	0.	0.	0.	30.	
CTO 1644	0.	0.	0.	0.	0.	1.	0.	0.	0.	1.	
CTR 1655	0.	0.	1.	0.	0.	0.	0.	0.	0.	1.	
CTI 1666	0.	0.	1.	10.	0.	0.	0.	0.	0.	22.	
YM 1700	3.	12.	47.	148.	11.	221.	272.	233.	0.	937.	
CYM 1701	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
LN 1750	0.	1.	0.	0.	0.	0.	0.	0.	0.	12.	
JP 1800	6.	14.	32.	123.	181.	169.	122.	0.	0.	648.	
OP 1900	0.	2.	10.	23.	19.	20.	5.	0.	0.	78.	
SK 2000	4.	0.	28.	48.	52.	40.	10.	0.	0.	190.	
OK 2100	1.	1.	9.	17.	22.	16.	17.	0.	0.	74.	
AS 2200	7.	10.	42.	125.	162.	183.	81.	0.	0.	610.	
SD 0500	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
CS 2290	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
IS 2300	0.	0.	1.	3.	3.	3.	0.	0.	0.	12.	
SM 2490	0.	1.	12.	27.	19.	4.	3.	0.	0.	66.	
JO 2600	0.	1.	3.	4.	7.	1.	1.	0.	0.	19.	
PC 2700	0.	1.	3.	2.	3.	5.	3.	0.	0.	16.	
LI 3100	0.	0.	0.	0.	4.	4.	1.	0.	0.	12.	
DM 3200	0.	0.	2.	6.	8.	10.	4.	0.	0.	31.	
MU 3300	1.	1.	3.	5.	1.	1.	17.	0.	0.	29.	
MY 3700	14.	27.	170.	269.	166.	491.	16.	0.	0.	1152.	

FIG. C-12: SAMPLE OUTPUT OF PLANNER, NO OPTIONS USED (Continued)

1N	JB02	2-	1-	106-	78-	32-	5-	36-	5-	0-	0-	287-
NR	3900	3-	11-	9-	21-	11-	0-	4-	0-	0-	0-	40-
BT	4000	19-	78-	56-	70-	0-	11-	12-	0-	0-	0-	252-
DR	4020	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-
EN	4100	11-	101-	101-	127-	0-	1-	320-	0-	0-	0-	676-
IC	4200	0-	70-	82-	73-	0-	6-	119-	0-	0-	0-	356-
MT	4303	5-	60-	61-	131-	0-	0-	31-	0-	0-	0-	337-
P4	4600	0-	1-	0-	0-	0-	0-	0-	0-	0-	0-	2-
HL	4700	0-	2-	2-	1-	0-	0-	0-	0-	0-	0-	5-
CS	4400	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-
CU	5080	4-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-
EA	5100	0-	2-	2-	0-	0-	0-	0-	0-	0-	0-	4-
CC	5300	0-	7-	13-	13-	0-	0-	10-	0-	0-	0-	13-
EO	5360	1-	0-	0-	0-	0-	0-	0-	0-	0-	0-	38-
ED	5410	0-	14-	10-	0-	0-	0-	0-	0-	0-	0-	1-
CM	5500	0-	1-	8-	15-	6-	2-	3-	0-	0-	0-	61-
JU	5600	0-	13-	21-	30-	11-	1-	12-	0-	0-	0-	34-
SW	5700	0-	7-	11-	13-	3-	0-	3-	0-	0-	0-	82-
UT	5800	1-	5-	6-	15-	0-	0-	2-	0-	0-	0-	36-
AF	6080	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	32-
AV	6180	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	58-
AD	6200	0-	222-	350-	460-	0-	713-	60-	0-	0-	0-	2620-
ADR	6205	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-
ADJ	6206	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-
AT	6300	0-	157-	488-	408-	0-	287-	463-	0-	0-	0-	1844-
AX	6310	0-	11-	54-	80-	32-	37-	108-	0-	0-	0-	323-
AN	6400	5-	56-	132-	127-	56-	21-	42-	0-	0-	0-	401-
AO	6500	4-	7-	185-	208-	68-	190-	164-	0-	0-	0-	826-
AO	6520	0-	53-	143-	152-	53-	119-	229-	0-	0-	0-	718-
AC	6600	3-	30-	51-	59-	30-	19-	47-	0-	0-	0-	217-
AJ	6700	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	16-
ADE	6704	6-	12-	14-	19-	0-	9-	43-	0-	0-	0-	96-
AF	6705	0-	10-	13-	11-	10-	9-	7-	0-	0-	0-	51-
AH	6706	0-	19-	55-	45-	19-	27-	36-	0-	0-	0-	184-
AE	6800	0-	108-	557-	403-	108-	404-	417-	0-	0-	0-	1924-
AN	6900	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	57-
AMS	6901	0-	108-	346-	276-	0-	499-	393-	0-	0-	0-	1622-
AMH	6902	0-	84-	313-	238-	84-	413-	392-	0-	0-	0-	1442-
AME	6903	0-	48-	182-	148-	48-	156-	165-	0-	0-	0-	700-
PR	7000	1-	11-	95-	68-	11-	65-	80-	0-	0-	0-	324-
AG	7100	1-	6-	9-	12-	6-	0-	31-	0-	0-	0-	60-
ID	7200	5-	46-	212-	165-	46-	36-	176-	0-	0-	0-	654-
AK	7300	2-	26-	77-	62-	26-	104-	97-	0-	0-	0-	371-
AS	7500	3-	14-	0-	29-	14-	0-	0-	0-	0-	0-	49-
ASE	7501	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	27-
ASH	7502	0-	0-	9-	0-	0-	8-	10-	0-	0-	0-	23-
ASM	7503	0-	0-	13-	0-	0-	9-	10-	0-	0-	0-	35-
AZ	7400	1-	44-	141-	108-	44-	184-	151-	0-	0-	0-	634-
PH	7600	0-	15-	17-	17-	15-	7-	15-	0-	0-	0-	75-
PT	7700	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-
MY	8000	6-	23-	152-	59-	23-	515-	102-	0-	0-	0-	1151-
DT	8300	0-	4-	5-	5-	4-	54-	21-	0-	0-	0-	121-
SW	3603	0-	0-	0-	0-	0-	3712-	0-	0-	0-	0-	3128-
FW	5000	0-	0-	0-	0-	0-	1146-	0-	0-	0-	0-	6846-
CN	6000	0-	0-	0-	0-	0-	115-	0-	0-	0-	0-	2516-
AN	7800	0-	0-	0-	0-	0-	2671-	0-	0-	0-	0-	274-
PAYGRADE		0-	0-	0-	0-	0-	11565-	0-	0-	0-	0-	1565-
TOTAL		311-	2935-	6202-	6304-	2935-	11565-	7034-	0-	6542-	41557-	

FIG. C-12: SAMPLE OUTPUT OF PLANNER, NO OPTIONS USED (Continued)

VARIABLE ENLISTED REQUIREMENTS FOR FY1979
ALL NAVY

RATING	E-9	E-8	E-7	E-6	PAYGRADE E-5	E-4	E-3	E-2	E-1	RATING TOTAL
BM 0100	46.	112.	527.	1003.	1435.	2134.	226.	0.	0.	5482.
NA 0150	18.	53.	188.	231.	0.	0.	0.	0.	0.	490.
QM 0200	18.	25.	383.	466.	595.	932.	252.	0.	0.	2672.
SM 0250	17.	23.	359.	344.	546.	827.	582.	0.	0.	2498.
OS 0300	28.	137.	326.	1016.	1440.	1984.	2182.	0.	0.	7112.
EW 0350	2.	23.	120.	194.	431.	397.	275.	0.	0.	1442.
ST 0400	14.	0.	0.	0.	0.	0.	0.	0.	0.	14.
SG 0401	0.	71.	172.	540.	817.	955.	720.	0.	0.	3315.
SI 0406	0.	91.	142.	375.	527.	764.	156.	0.	0.	2055.
DT 0450	0.	1.	9.	23.	23.	22.	11.	0.	0.	87.
TM 0500	54.	35.	213.	468.	737.	791.	222.	0.	0.	2539.
GN 0600	17.	62.	0.	0.	0.	0.	0.	0.	0.	79.
GM 0601	0.	0.	75.	218.	248.	292.	172.	0.	0.	1004.
GT 0602	3.	16.	51.	306.	344.	430.	133.	0.	0.	1292.
GG 0604	0.	0.	261.	516.	841.	844.	626.	0.	0.	3090.
FT 0800	102.	200.	0.	0.	0.	0.	0.	0.	0.	102.
FTG 0801	0.	0.	287.	552.	609.	691.	315.	0.	0.	2558.
FTB 0902	0.	0.	180.	570.	747.	1053.	338.	0.	0.	2889.
FTM 0803	0.	0.	88.	155.	225.	246.	0.	0.	0.	694.
RT 0810	0.	0.	87.	272.	440.	685.	0.	0.	0.	1483.
NW 0900	0.	2.	7.	6.	5.	10.	1.	0.	0.	32.
ET 1000	76.	192.	714.	1854.	0.	0.	0.	0.	0.	2836.
EN 1001	0.	0.	0.	0.	1192.	1419.	255.	0.	0.	2867.
EN 1002	0.	0.	0.	0.	1636.	1683.	229.	0.	0.	3548.
DS 1010	3.	30.	102.	351.	494.	525.	11.	0.	0.	1517.
PT 1020	3.	0.	0.	0.	0.	0.	0.	0.	0.	3.
IM 1100	0.	7.	29.	71.	109.	119.	28.	0.	0.	361.
OM 1200	0.	6.	24.	54.	72.	78.	14.	0.	0.	247.
AC 1400	19.	23.	124.	322.	0.	0.	0.	0.	0.	448.
RY 1500	49.	130.	599.	1108.	1618.	2444.	1739.	0.	0.	7677.
CTF 1611	1.	2.	16.	31.	21.	14.	7.	0.	0.	92.
CFM 1622	1.	1.	4.	5.	11.	3.	4.	0.	0.	32.
CFM 1633	1.	0.	7.	25.	24.	32.	0.	0.	0.	89.
CTF 1644	1.	0.	4.	13.	14.	22.	7.	0.	0.	65.
CTF 1655	1.	1.	4.	14.	18.	23.	12.	0.	0.	71.
CTF 1666	0.	0.	2.	14.	18.	7.	3.	0.	0.	46.
TM 1700	15.	77.	424.	714.	900.	1563.	1445.	0.	0.	5132.
CTM 1701	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
LN 1750	1.	1.	9.	25.	31.	0.	0.	0.	0.	68.
PM 1800	31.	53.	361.	537.	699.	791.	779.	0.	0.	3250.
DP 1900	1.	8.	70.	149.	218.	344.	360.	0.	0.	1150.
SK 2000	49.	119.	492.	781.	1149.	1458.	735.	0.	0.	4784.
DK 2100	2.	30.	35.	367.	261.	155.	228.	0.	0.	1099.
MS 2200	50.	96.	560.	1699.	2329.	3023.	2791.	0.	0.	10549.
SD 2300	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CS 2290	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
IS 2300	0.	5.	16.	53.	113.	134.	107.	0.	0.	429.
SH 2490	17.	23.	85.	480.	642.	1366.	1628.	0.	0.	3640.
JO 2600	0.	0.	10.	27.	38.	168.	18.	0.	0.	264.
PC 2700	1.	3.	20.	62.	156.	294.	52.	0.	0.	588.
LI 3100	0.	5.	17.	46.	68.	83.	29.	0.	0.	248.
OM 3200	0.	0.	3.	21.	43.	31.	16.	0.	0.	106.
MU 3300	2.	2.	5.	8.	4.	626.	18.	0.	0.	43.
NY 3700	206.	511.	11/1.	3599.	4763.	6263.	1262.	0.	0.	17771.

FIG. C-12: SAMPLE OUTPUT OF PLANNER, NO OPTIONS USED (Continued)

EN 3000	68.	76.	378.	782.	900.	1261.	498.	0.	0.	4035.
NR 3900	5.	24.	110.	338.	571.	541.	158.	0.	0.	1747.
BT 4000	95.	144.	451.	1165.	1918.	2240.	1720.	0.	0.	8356.
BR 4020	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
EN 4100	102.	205.	641.	1534.	1902.	3076.	1603.	0.	0.	8469.
IC 4200	0.	36.	303.	827.	1230.	1582.	578.	0.	0.	4555.
MT 4300	49.	142.	590.	1401.	1999.	2715.	756.	0.	0.	7651.
PH 4600	0.	0.	11.	27.	25.	30.	3.	0.	0.	96.
NL 4700	0.	5.	18.	27.	31.	38.	10.	0.	0.	129.
CS 4400	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CU 5080	6.	0.	0.	0.	0.	0.	0.	0.	0.	6.
EA 5100	6.	1.	4.	11.	6.	6.	2.	0.	0.	30.
CC 5300	0.	2.	13.	28.	31.	31.	7.	0.	0.	112.
CO 5300	2.	0.	0.	0.	0.	0.	0.	0.	0.	2.
EO 5410	0.	3.	22.	46.	40.	36.	17.	0.	0.	166.
CM 5500	0.	2.	12.	36.	30.	26.	9.	0.	0.	112.
BU 5600	0.	6.	25.	57.	52.	39.	16.	0.	0.	193.
SM 5700	0.	3.	10.	25.	20.	14.	5.	0.	0.	77.
UT 5800	2.	4.	10.	29.	29.	22.	6.	0.	0.	102.
AF 6000	257.	0.	0.	0.	0.	0.	0.	0.	0.	257.
PV 6130	186.	0.	0.	0.	0.	0.	0.	0.	0.	186.
AD 6200	6.	315.	631.	1773.	1957.	2157.	1868.	0.	0.	8702.
JOR 6205	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
IOJ 6206	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AT 6300	0.	186.	484.	1349.	2309.	2277.	1140.	0.	0.	7825.
AX 6310	0.	41.	110.	366.	441.	413.	143.	0.	0.	1516.
AM 6400	6.	83.	199.	384.	548.	611.	413.	0.	0.	2243.
AO 6500	9.	21.	207.	826.	1074.	1307.	1160.	0.	0.	4690.
AO 6520	0.	105.	175.	502.	743.	761.	320.	0.	0.	2610.
AC 6600	4.	21.	70.	171.	279.	200.	136.	0.	0.	886.
AB 6700	35.	51.	0.	0.	0.	0.	0.	0.	0.	87.
ABE 6704	0.	0.	69.	133.	216.	359.	366.	0.	0.	1161.
ABF 6705	0.	0.	64.	107.	184.	367.	250.	0.	0.	972.
ABH 6706	0.	0.	90.	245.	312.	612.	408.	0.	0.	1687.
AE 6800	0.	134.	423.	1145.	1806.	1721.	1231.	0.	0.	6540.
AN 6900	0.	272.	0.	0.	0.	0.	0.	0.	0.	272.
ANS 6901	0.	0.	397.	97.	1338.	1504.	1396.	0.	0.	5811.
AMH 6902	0.	0.	274.	84.	1261.	1368.	1138.	0.	0.	4702.
AME 6903	0.	0.	124.	451.	551.	522.	513.	0.	0.	2161.
PR 7000	1.	4.	28.	185.	366.	364.	167.	0.	0.	1115.
AG 7100	3.	8.	27.	71.	72.	147.	62.	0.	0.	388.
TO 7200	5.	14.	50.	181.	236.	196.	45.	0.	0.	727.
AK 7300	16.	6.	91.	350.	523.	636.	475.	0.	0.	2097.
AS 7500	10.	14.	34.	127.	0.	0.	0.	0.	0.	186.
ASE 7501	0.	0.	0.	0.	78.	98.	43.	0.	0.	219.
ASH 7502	0.	0.	0.	0.	71.	75.	42.	0.	0.	117.
ASM 7503	0.	0.	0.	0.	150.	115.	103.	0.	0.	388.
AZ 7400	1.	15.	120.	400.	535.	676.	497.	0.	0.	2246.
PH 7600	1.	16.	33.	108.	184.	228.	77.	0.	0.	642.
PT 7700	35.	116.	586.	891.	1239.	1568.	2328.	0.	0.	0.
MM 5000	5.	11.	68.	130.	206.	270.	480.	0.	286.	7268.
DI 8300	0.	0.	0.	0.	0.	0.	35172.	0.	35.	1205.
SA 5600	0.	0.	0.	0.	0.	0.	14899.	0.	3128.	38300.
FM 5000	0.	0.	0.	0.	0.	0.	154.	0.	1369.	16269.
CM 6000	0.	0.	0.	0.	0.	0.	154.	0.	159.	313.
AN 7800	0.	0.	0.	0.	0.	0.	12146.	0.	1565.	13710.
PAYGRADE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TOTAL	1758.	4272.	15174.	37783.	52363.	65953.	99316.	0.	6542.	283582.

FIG. C-12: SAMPLE OUTPUT OF PLANNER, NO OPTIONS USED (Continued)

VARIABLE ENLISTED REQUIREMENTS FOR FY1979

SUMMARY TABLE

RATING	TOTAL	PERCENT	RATING	TOTAL	PERCENT	RATING	TOTAL	PERCENT
BM	5482.	1.93	CYN	0.	0.00	AV	186.	0.07
MA	490.	0.17	LN	69.	0.02	AO	8702.	3.07
QM	2672.	0.54	PN	3250.	1.15	ADR	0.	0.00
SM	2498.	0.88	DP	1150.	0.41	ADJ	0.	0.00
OS	7112.	2.51	SK	4784.	1.69	AT	7825.	2.76
EN	1442.	0.51	DK	1099.	0.39	AX	1514.	0.53
ST	14.	0.00	MS	10549.	3.72	AW	2243.	0.79
STG	3315.	1.17	SD	0.	0.00	AD	4690.	1.65
STS	2055.	0.72	CS	0.	0.00	AQ	2610.	0.92
OT	87.	0.03	IS	429.	0.15	AC	886.	0.31
TM	2539.	0.50	SH	3640.	1.28	AB	87.	0.03
GM	79.	0.03	JO	264.	0.09	AGE	1163.	0.41
GMM	1004.	0.35	PC	588.	0.21	A3F	972.	0.34
GMI	1292.	0.46	LI	248.	0.09	ABH	1687.	0.59
GNG	3090.	1.09	DM	106.	0.04	AE	6540.	2.31
FT	302.	0.11	MU	43.	0.02	AM	272.	0.10
FTG	2554.	0.50	MM	17771.	6.27	AMS	5811.	2.05
FTB	2889.	1.02	EN	4035.	1.42	AWH	4702.	1.66
FTM	694.	0.24	MR	1747.	0.62	ANE	2161.	0.76
MT	1483.	0.52	BT	8334.	2.94	PR	1115.	0.39
MN	32.	0.01	BR	0.	0.00	AG	388.	0.14
ET	2836.	1.00	EM	8489.	2.99	ID	727.	0.26
ETN	2867.	1.01	IC	4555.	1.61	AK	2097.	0.74
ETR	3548.	1.25	HT	7653.	2.70	AS	186.	0.07
DS	1517.	0.53	PM	96.	0.03	ASE	219.	0.08
PI	3.	0.00	ML	129.	0.05	ASH	187.	0.07
IM	363.	0.13	GS	0.	0.00	ASM	388.	0.14
DM	247.	0.09	CU	6.	0.00	AZ	2246.	0.79
NC	488.	0.17	EA	30.	0.01	PT	642.	0.23
RM	7677.	2.71	CE	112.	0.04	PT	0.	0.00
CTT	92.	0.03	EQ	2.	0.00	HM	7268.	2.56
CIA	32.	0.01	EO	166.	0.06	DT	1205.	0.42
CTM	89.	0.03	CH	112.	0.04	SN	39300.	13.51
CTO	65.	0.02	BU	193.	0.07	FN	16269.	5.74
CTR	73.	0.03	SW	77.	0.03	CN	313.	0.11
CTI	46.	0.02	UT	102.	0.04	AN	13710.	4.83
YN	5138.	1.81	AF	257.	0.09			

FIG. C-12: SAMPLE OUTPUT OF PLANNER, NO OPTIONS USED (Continued)

VARIABLE ENLISTED REQUIREMENTS FOR FY1979

SUMMARY TABLE

PAYGRADE	TOTAL	PERCENT
E-9	1758.	0.62
E-8	4272.	1.51
E-7	15174.	5.35
E-6	37783.	13.32
E-5	52362.	18.46
E-4	65553.	23.26
E-3	99736.	35.17
E-2	0.	0.00
E-1	6542.	2.31
P.O.	177303.	62.52
NON P.C.	106279.	37.48

FIG. C-12: SAMPLE OUTPUT OF PLANNER, NO OPTIONS USED (Continued)

TOTAL ENLISTED REQUIREMENTS FOR FY1979

SHIP FORCES

RATING	PAYGRADE										RATING TOTAL
	E-9	E-8	E-7	E-6	E-5	E-4	E-3	E-2	E-1		
BM 0100	52	122	589	1011	1435	2244	238	0	0	5692	
MA 0150	15	45	157	174	0	0	0	0	0	396	
OM 0200	16	36	353	441	606	935	241	0	0	2630	
SM 0250	17	19	141	281	521	846	576	0	0	2399	
OS 0300	21	125	220	821	1370	1900	2118	0	0	5576	
EM 0350	2	24	108	132	376	376	265	0	0	1284	
ST 0400	16	0	0	0	0	0	0	0	0	16	
STG 0401	0	82	152	478	733	828	685	0	0	2958	
STS 0404	0	98	113	308	541	696	165	0	0	1919	
OT 0450	13	44	92	240	321	353	209	0	0	1262	
FT 0500	52	31	195	657	729	741	213	0	0	2418	
GM 0600	18	76	0	0	0	0	0	0	0	93	
GMF 0601	0	0	69	169	230	277	163	0	0	907	
GMF 0602	2	14	37	292	365	416	135	0	0	1260	
GMG 0604	0	0	270	463	881	854	607	0	0	3073	
FT 0800	116	205	0	0	0	0	0	0	0	325	
FTG 0801	0	0	283	476	652	639	311	0	0	2359	
FTB 0802	0	0	134	453	684	903	320	0	0	2495	
FTM 0803	0	0	54	130	216	205	0	0	0	605	
MT 0810	0	0	74	243	430	624	0	0	0	1371	
MN 0900	0	17	26	62	98	144	46	0	0	401	
ET 1000	82	215	656	1624	0	0	0	0	0	2577	
ETM 1001	0	0	0	0	1171	1238	236	0	0	2666	
ETR 1002	0	0	0	0	1514	1205	201	0	0	2921	
DS 1010	3	33	90	285	455	461	10	0	0	1336	
PI 1080	3	0	0	0	0	0	0	0	0	0	
I4 1100	0	6	26	82	116	125	29	0	0	38	
DM 1200	0	8	22	57	78	85	15	0	0	265	
MC 1400	16	23	84	138	0	0	0	0	0	250	
AM 1500	47	143	579	1141	1702	2559	1760	0	0	7931	
CTI 1611	0	0	8	19	1	0	0	0	0	30	
CTA 1622	0	0	1	3	9	2	0	0	0	14	
CTM 1633	0	0	0	10	9	9	0	0	0	20	
CTB 1644	0	0	0	0	11	9	0	0	0	28	
CIR 1655	0	0	1	9	9	9	0	0	0	27	
CIR 1666	0	0	0	0	0	0	0	0	0	0	
YV 1700	23	81	435	532	689	1160	233	0	0	3754	
CYN 1701	0	0	0	0	0	0	0	0	0	0	
LN 1750	0	0	0	16	22	0	0	0	0	39	
PN 1800	25	31	249	244	32	413	480	0	0	1765	
OP 1900	0	6	62	123	228	320	336	0	0	1074	
SK 2000	58	151	492	842	1196	1552	750	0	0	5039	
DK 2100	0	26	16	324	164	121	223	0	0	876	
MS 2200	38	80	490	1446	1967	2557	2459	0	0	9038	
SO 2500	0	0	0	0	0	0	0	0	0	0	
CS 2290	0	0	0	0	0	0	0	0	0	0	
LS 2300	0	6	19	45	89	102	66	0	0	327	
SH 2490	16	20	65	432	611	1160	1003	0	0	3506	
JO 2600	0	1	8	16	28	157	13	0	0	229	
PC 2700	0	0	14	65	137	282	55	0	0	533	
LI 3100	0	5	20	48	69	80	28	0	0	251	
DM 3200	1	0	3	26	50	59	1	0	0	120	
MU 3300	0	0	0	0	0	0	0	0	0	0	
MM 3700	211	565	1033	3672	4831	5755	1231	0	0	17302	

FIG. C-12: SAMPLE OUTPUT OF PLANNER, NO OPTIONS USED (Continued)

EN 1800	66.	79.	346.	845.	1081.	1369.	522.	0.	0.	4302.
MR 3900	4.	27.	120.	400.	637.	570.	164.	0.	0.	1922.
UT 4000	89.	135.	399.	1191.	1940.	2785.	1642.	0.	0.	8180.
WR 4020	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
EM 4100	97.	215.	572.	1625.	1946.	2766.	986.	0.	0.	8206.
IC 4200	0.	31.	269.	862.	1235.	1466.	560.	0.	0.	4422.
MT 4100	51.	147.	598.	1590.	2224.	2781.	759.	0.	0.	8152.
PM 4600	0.	0.	10.	11.	32.	35.	3.	0.	0.	111.
HL 4700	1.	4.	18.	31.	38.	43.	11.	0.	0.	147.
GS 4400	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CU 5080	15.	0.	0.	0.	0.	0.	0.	0.	0.	15.
EA 5100	0.	3.	9.	15.	49.	36.	33.	0.	0.	146.
CE 5300	0.	5.	22.	79.	127.	151.	132.	0.	0.	521.
EQ 5320	16.	0.	0.	0.	0.	0.	0.	0.	0.	16.
EO 5410	0.	18.	32.	144.	193.	268.	237.	0.	0.	890.
EO 5410	0.	14.	40.	91.	165.	210.	158.	0.	0.	678.
CU 5500	0.	25.	78.	171.	336.	395.	374.	0.	0.	1378.
RU 5600	0.	12.	37.	70.	67.	142.	127.	0.	0.	481.
SM 5700	0.	10.	19.	71.	129.	140.	123.	0.	0.	586.
UT 5800	11.	0.	0.	0.	0.	0.	0.	0.	0.	26.
AF 6000	26.	0.	0.	0.	0.	0.	0.	0.	0.	13.
AV 6140	13.	0.	34.	78.	104.	56.	10.	0.	0.	305.
AD 6200	0.	15.	0.	0.	0.	0.	0.	0.	0.	0.
ADR 6205	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ADJ 6206	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AT 6100	0.	30.	54.	125.	187.	117.	23.	0.	0.	516.
AX 6110	0.	0.	0.	19.	45.	27.	0.	0.	0.	91.
AX 6400	0.	9.	14.	29.	34.	43.	0.	0.	0.	121.
AO 6502	5.	17.	25.	39.	226.	422.	252.	0.	0.	1187.
A2 6520	0.	11.	30.	53.	78.	62.	6.	0.	0.	239.
AC 6600	1.	38.	0.	77.	189.	125.	104.	0.	0.	512.
AS 6700	19.	0.	0.	0.	0.	0.	0.	0.	0.	56.
A-E 6704	0.	0.	53.	104.	209.	301.	341.	0.	0.	1007.
ABF 6705	0.	0.	47.	83.	149.	339.	224.	0.	0.	842.
ABM 6706	0.	0.	60.	166.	219.	511.	309.	0.	0.	1264.
AE 6800	0.	0.	18.	67.	119.	57.	19.	0.	0.	200.
AM 6900	0.	10.	0.	0.	0.	0.	0.	0.	0.	10.
AMS 6901	0.	0.	22.	46.	57.	31.	19.	0.	0.	174.
AMH 6902	0.	0.	14.	32.	45.	11.	15.	0.	0.	336.
AME 6903	0.	0.	3.	5.	15.	10.	8.	0.	0.	40.
PR 7000	0.	1.	16.	19.	43.	13.	18.	0.	0.	112.
AG 7100	2.	6.	13.	51.	56.	103.	59.	0.	0.	294.
TD 7200	13.	0.	0.	2.	1.	0.	3.	0.	0.	6.
AK 7300	0.	9.	32.	46.	201.	182.	153.	0.	0.	679.
AS 7500	7.	0.	14.	54.	0.	0.	0.	0.	0.	83.
ASE 7501	0.	0.	0.	0.	44.	55.	17.	0.	0.	116.
ASH 7502	0.	0.	0.	0.	50.	57.	24.	0.	0.	111.
ASM 7503	0.	0.	0.	0.	65.	67.	31.	0.	0.	161.
AZ 7400	0.	9.	32.	27.	50.	79.	29.	0.	0.	222.
PH 7600	1.	21.	33.	122.	187.	194.	65.	0.	0.	622.
PT 7700	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MM 8000	2.	57.	397.	331.	354.	395.	428.	0.	0.	2023.
DT 8100	0.	0.	36.	64.	101.	98.	125.	0.	0.	427.
SM 3600	0.	0.	0.	0.	0.	0.	29590.	0.	0.	29590.
FM 5000	0.	0.	0.	0.	0.	0.	12698.	0.	0.	12698.
CM 6000	0.	0.	0.	0.	0.	0.	26.	0.	0.	26.
AM 7800	0.	0.	0.	0.	0.	0.	5597.	0.	0.	5597.
PAYGRADE										
TOTAL	1307.	3302.	11032.	16962.	38716.	49072.	72639.	0.	0.	262429.

FIG C-12: SAMPLE OUTPUT OF PLANNER, NO OPTIONS USED (Continued)

TOTAL ENLISTED REQUIREMENTS FOR FY1979
ALL NAVY

RATING	E-9	E-8	E-7	E-6	PAYGRADE	E-4	E-3	E-2	E-1	RATING TOTAL
AW 0100	140	301	1216	2018	2525	2850	296	0	0	9188
AW 0150	49	85	300	24	82	1072	20	0	0	4258
AW 0200	47	112	725	649	892	1072	20	0	0	4258
SW 0250	24	54	218	411	767	919	212	0	0	3211
OS 0300	07	207	582	1519	1787	2191	212	0	0	8685
EW 0350	9	47	255	368	576	415	245	0	0	1591
ST 0400	56	0	0	0	0	0	0	0	0	56
STG 0401	0	113	368	400	978	1072	729	0	0	3999
STG 0404	0	144	282	545	707	914	72	0	0	2755
ST 0500	15	39	110	296	363	374	221	0	0	1419
FA 0509	49	65	374	624	1110	1210	359	0	0	4026
GA 0600	55	118	0	0	0	0	0	0	0	193
2AP 0601	0	129	356	356	356	318	173	0	0	1352
2AP 0602	12	42	152	500	511	571	197	0	0	2001
2AP 0603	0	0	0	0	0	0	0	0	0	0
2AP 0604	112	369	152	918	1211	1074	174	0	0	4277
FT 0700	0	0	649	792	889	750	32	0	0	321
FTG 0801	0	0	288	405	869	1230	315	0	0	3261
FTM 0802	0	0	104	229	299	123	315	0	0	3955
FTM 0803	0	0	164	423	669	819	0	0	0	2195
AT 0819	0	24	45	67	145	171	49	0	0	514
MY 0909	15	394	1372	3201	0	0	0	0	0	5111
ET 1009	161	0	0	0	2451	2602	503	0	0	3547
ETA 1001	0	0	0	0	2255	2188	289	0	0	4972
ETM 1002	0	47	180	555	747	715	16	0	0	2272
OS 1010	13	0	0	0	0	0	0	0	0	7
PI 1060	7	0	0	0	0	0	0	0	0	7
JA 1200	0	18	66	114	132	139	31	0	0	495
JA 1209	0	10	38	80	95	94	17	0	0	314
NC 1430	30	96	316	607	0	0	0	0	0	1077
NY 1509	146	412	1797	2631	3997	4815	1055	0	0	16149
CT 1611	15	42	156	385	389	431	215	0	0	1613
CT 1612	15	42	156	385	389	431	215	0	0	1613
CTM 1615	25	67	166	174	646	1902	720	0	0	2986
CTQ 1644	16	34	166	269	391	478	255	0	0	1828
CFA 1655	23	58	180	323	412	556	391	0	0	1986
CTE 1664	10	17	103	224	256	181	78	0	0	910
VA 1700	117	314	1254	2500	2900	3001	2005	0	0	12072
CVN 1701	0	0	0	0	0	0	0	0	0	0
L4 1750	12	23	77	156	169	0	0	0	0	417
PA 1903	112	156	795	1526	1731	1327	997	0	0	6675
OP 1903	29	56	270	600	761	569	527	0	0	3131
SK 2000	157	310	1107	1605	2329	2239	544	0	0	8491
UK 2109	16	55	149	704	397	561	230	0	0	2161
NS 2200	135	291	1127	3341	4131	4380	2144	0	0	16750
2P 2503	0	0	0	0	0	0	0	0	0	0
CS 2603	0	0	0	0	0	0	0	0	0	0
SA 2603	17	31	176	341	1107	242	113	0	0	13899
SA 2603	7	125	270	1068	1305	1511	1075	0	0	5451
JO 2609	15	28	42	118	269	419	141	0	0	707
PC 2709	15	18	42	118	269	419	141	0	0	707
LE 1109	2	3	35	82	121	154	60	0	0	311
DN 2209	1	3	20	85	126	80	18	0	0	311
MU 1509	24	41	56	168	177	287	44	0	0	396
MM 1709	144	788	1415	4974	5734	7147	1192	0	0	22234

FIG. C-12: SAMPLE OUTPUT OF PLANNER R, NO OPTIONS USED (Continued)

IN 1000	117.	170.	766.	1661.	1007.	1865.	651.	0.	0.	7196.
WM 1000	18.	68.	198.	560.	805.	571.	178.	0.	0.	2651.
WT 6000	137.	232.	762.	1678.	2292.	2983.	178.	0.	0.	9990.
JM 6020	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
EN 6100	172.	332.	1071.	2328.	2801.	3780.	1099.	0.	0.	11584.
IC 6200	0.	64.	467.	1167.	1535.	1844.	622.	0.	0.	5779.
MT 6300	87.	234.	1006.	2276.	2825.	3134.	214.	0.	0.	10166.
PM 6400	0.	0.	19.	41.	31.	57.	1.	0.	0.	117.
ML 6700	2.	7.	26.	41.	47.	67.	11.	0.	0.	181.
GS 6800	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CU 5080	40.	0.	0.	0.	0.	0.	0.	0.	0.	40.
EA 5100	0.	8.	21.	72.	87.	74.	41.	0.	0.	306.
CE 5300	0.	23.	101.	248.	309.	319.	171.	0.	0.	1245.
EO 5180	16.	0.	0.	0.	0.	0.	0.	0.	0.	16.
EO 5410	0.	14.	126.	346.	450.	484.	317.	0.	0.	1758.
CM 5500	0.	26.	101.	272.	356.	358.	196.	0.	0.	1305.
JU 5600	0.	31.	218.	442.	616.	592.	428.	0.	0.	2379.
SA 5700	0.	24.	77.	164.	179.	227.	141.	0.	0.	811.
WT 5800	25.	28.	77.	238.	356.	297.	154.	0.	0.	1167.
AF 6030	356.	6.	0.	0.	0.	0.	0.	0.	0.	356.
AV 6180	288.	0.	1031.	258.	2913.	2974.	2451.	0.	0.	12451.
AD 6200	0.	475.	0.	0.	0.	0.	0.	0.	0.	0.
AD 6205	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AD 6206	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AT 6100	0.	292.	828.	2161.	3126.	3070.	1448.	0.	0.	11186.
AR 6110	0.	66.	195.	502.	623.	581.	175.	0.	0.	2147.
AW 6400	22.	120.	313.	599.	790.	702.	450.	0.	0.	3001.
AO 6500	41.	64.	447.	1149.	1355.	1544.	1376.	0.	0.	6015.
AO 6520	0.	139.	251.	674.	896.	939.	285.	0.	0.	3285.
AC 6600	17.	88.	238.	612.	788.	703.	214.	0.	0.	2142.
AB 6700	55.	85.	0.	0.	0.	0.	0.	0.	0.	144.
AB 6704	0.	0.	166.	209.	371.	444.	412.	0.	0.	1491.
AB 6705	0.	0.	127.	196.	324.	453.	319.	0.	0.	1419.
AM 6706	0.	0.	185.	416.	516.	820.	578.	0.	0.	2516.
AE 6800	0.	175.	600.	1708.	2655.	2215.	1517.	0.	0.	8374.
AM 6900	0.	370.	0.	0.	0.	0.	0.	0.	0.	370.
AS 6901	0.	0.	577.	1373.	1812.	1869.	1510.	0.	0.	7562.
AV 6902	0.	0.	410.	1165.	1459.	1884.	1396.	0.	0.	6116.
AE 6903	0.	0.	173.	563.	709.	663.	559.	0.	0.	2696.
PR 7000	8.	16.	85.	329.	514.	495.	238.	0.	0.	1704.
AS 7100	14.	44.	154.	359.	377.	501.	111.	0.	0.	1560.
TD 7200	13.	30.	109.	373.	477.	403.	91.	0.	0.	1497.
AK 7300	34.	47.	302.	718.	1007.	1097.	715.	0.	0.	1821.
AS 7500	18.	55.	110.	329.	0.	0.	0.	0.	0.	492.
ASE 7501	0.	0.	0.	0.	179.	193.	101.	0.	0.	475.
ASH 7502	0.	0.	0.	0.	155.	168.	99.	0.	0.	427.
AS 7503	12.	51.	211.	615.	261.	247.	172.	0.	0.	622.
AZ 7400	0.	45.	127.	336.	800.	910.	645.	0.	0.	3283.
PM 7600	6.	0.	0.	0.	477.	461.	146.	0.	0.	1597.
PI 7700	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MY 8000	181.	408.	1666.	3038.	4391.	5298.	4657.	0.	0.	21598.
DI 8300	20.	51.	174.	402.	601.	850.	1304.	0.	0.	3468.
SN 8500	0.	0.	0.	0.	0.	0.	4657.	0.	0.	52717.
FN 5000	0.	0.	0.	0.	0.	0.	18718.	0.	0.	2489.
CN 6000	0.	0.	0.	0.	0.	0.	463.	0.	0.	313.
AN 7400	0.	0.	0.	0.	0.	0.	15586.	0.	0.	3072.
PAYROLL	0.	0.	0.	0.	0.	0.	0.	0.	0.	18650.
TOTAL	4863.	9175.	51063.	70895.	103024.	97955.	135809.	0.	0.	464465.

FIG. C-12: SAMPLE OUTPUT OF PLANNER, NO OPTIONS USED (Continued)

TOTAL ENLISTED REQUIREMENTS FOR FY1979
SUMMARY TABLE

RATING	TOTAL	PERCENT	RATING	TOTAL	PERCENT	RATING	TOTAL	PERCENT
JM	9188-	2-02	CYN	0-	0-00	AV	288-	0-06
NA	956-	0-21	LN	417-	0-04	AD	12451-	2-68
QM	4005-	0-86	PN	6675-	1-44	ADR	0-	0-00
SM	3231-	0-69	UP	3131-	0-67	ADJ	0-	0-00
OS	8645-	1-07	SK	8991-	1-91	AT	11124-	2-41
EN	1891-	0-41	UK	2161-	0-46	AF	2147-	0-46
ST	56-	0-01	MS	16750-	3-60	AW	3001-	0-65
JTG	3999-	0-86	SO	0-	0-00	AD	6015-	1-29
STS	2755-	0-59	CS	0-	0-00	A2	3285-	0-71
OT	1419-	0-31	JS	13999-	3-01	AC	2642-	0-57
FM	4026-	0-87	SH	5451-	1-17	A3	144-	0-03
GM	173-	0-04	JO	707-	0-15	ABE	1491-	0-32
GM4	1352-	0-29	PC	1061-	0-23	ABF	1419-	0-31
GME	2001-	0-43	LI	459-	0-10	ARM	2516-	0-55
GNG	4277-	0-92	DM	335-	0-07	AE	8274-	1-91
FT	521-	0-11	MU	896-	0-19	AM	370-	0-03
FTG	3261-	0-70	MM	22234-	4-78	AMS	7562-	1-63
FT4	3545-	0-76	EN	7194-	1-55	AMH	6114-	1-31
FTM	954-	0-21	MR	2451-	0-53	AME	2696-	0-58
AT	2196-	0-47	BT	9890-	2-13	Pq	1706-	0-37
MN	514-	0-11	BR	0-	0-00	AG	1560-	0-34
ET	5131-	1-10	EM	11584-	2-49	IO	1497-	0-32
ETN	5542-	1-19	IC	5759-	1-24	AK	3921-	0-84
ETR	4972-	1-07	HT	10396-	2-24	AS	492-	0-11
OS	2272-	0-49	PM	137-	0-03	ASE	472-	0-10
PI	7-	0-00	ML	181-	0-04	ASH	422-	0-09
IM	495-	0-11	GS	0-	0-00	ASM	682-	0-15
QM	314-	0-07	CU	40-	0-01	AZ	3285-	0-71
NC	1077-	0-23	EA	308-	0-07	PH	1597-	0-34
NN	16349-	3-52	CE	1245-	0-27	PT	0-	0-00
CTT	1633-	0-35	EQ	36-	0-01	HM	23598-	5-03
CTA	206-	0-19	EO	1756-	0-38	DT	3468-	0-75
CTM	1828-	0-39	CM	1309-	0-28	SN	52717-	11-34
CTJ	1586-	0-34	AU	2379-	0-51	FN	21407-	4-60
CTH	1954-	0-42	SM	811-	0-17	CN	776-	0-17
CTI	910-	0-20	UT	1167-	0-25	AN	18651-	4-01
YN	12092-	2-60	AF	356-	0-08			

FIG. C-12: SAMPLE OUTPUT OF PLANNER, NO OPTIONS USED (Continued)

TOTAL ENLISTED REQUIREMENTS FOR FY1979

SUMMARY TABLE

PAYGRADE	TOTAL	PERCENT
E-9	4063.	0.87
E-8	9179.	1.97
E-7	31063.	6.68
E-6	70895.	15.25
E-5	103024.	22.16
E-4	97955.	21.07
E-3	135909.	29.23
E-2	0.	0.00
E-1	12854.	2.76
P.O.	316180.	68.00
NOA P.O.	148763.	32.00

FIG. C-12: SAMPLE OUTPUT OF PLANNER, NO OPTIONS USED (Continued)

ALL NAVY ENLISTED REQUIREMENTS FOR FY1979

RATING	LENGTH OF SERVICE															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
OP 0100	7.	116.	920.	1107.	829.	679.	456.	472.	282.	240.	264.	327.	310.	315.	315.	359.
MA 0150	0.	0.	0.	0.	0.	10.	12.	21.	32.	32.	32.	54.	87.	77.	77.	98.
OM 0200	45.	270.	598.	538.	221.	208.	222.	174.	138.	116.	120.	120.	86.	86.	125.	160.
SM 0250	72.	397.	517.	457.	241.	240.	166.	81.	95.	61.	37.	40.	61.	56.	67.	67.
OS 0300	185.	1505.	1921.	1851.	241.	550.	368.	329.	261.	165.	115.	110.	161.	151.	116.	168.
EW 0350	0.	292.	326.	205.	224.	71.	155.	52.	66.	46.	35.	52.	61.	62.	43.	44.
ST 0400	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.
ST 0400	327.	227.	541.	307.	309.	299.	161.	133.	106.	69.	71.	216.	124.	124.	71.	79.
ST 0400	188.	443.	474.	268.	253.	179.	123.	92.	75.	71.	51.	46.	51.	56.	53.	53.
ST 0400	10.	185.	207.	209.	79.	76.	81.	51.	65.	49.	41.	31.	45.	45.	29.	29.
FM 0500	22.	305.	771.	588.	148.	249.	236.	141.	115.	83.	93.	55.	102.	140.	147.	147.
GM 0600	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
GM 0600	15.	177.	220.	155.	109.	105.	106.	78.	42.	42.	26.	26.	40.	52.	56.	56.
GM 0600	20.	152.	455.	245.	109.	105.	106.	78.	42.	42.	26.	26.	40.	52.	56.	56.
GM 0600	51.	470.	590.	480.	307.	310.	190.	177.	92.	105.	111.	121.	111.	166.	166.	166.
FT 0700	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
FT 0700	36.	355.	616.	401.	267.	261.	192.	124.	149.	113.	110.	65.	62.	65.	75.	68.
FT 0700	141.	610.	677.	378.	411.	220.	81.	99.	121.	103.	103.	85.	127.	127.	127.	127.
FT 0700	32.	140.	149.	181.	36.	32.	38.	72.	72.	39.	29.	28.	6.	6.	24.	11.
FT 0700	128.	461.	281.	498.	64.	90.	91.	126.	107.	94.	31.	28.	11.	25.	42.	16.
HN 0800	3.	47.	10.	64.	26.	41.	59.	21.	20.	18.	14.	10.	6.	7.	31.	7.
HN 0800	2.	4.	0.	1.	22.	199.	181.	368.	395.	381.	318.	334.	308.	321.	352.	351.
ET 1000	407.	1175.	946.	564.	502.	651.	274.	246.	153.	69.	38.	21.	9.	1.	0.	1.
ET 1000	172.	946.	1134.	757.	469.	544.	300.	200.	155.	45.	26.	21.	4.	4.	4.	4.
ET 1000	11.	202.	342.	349.	316.	238.	79.	70.	81.	64.	70.	59.	52.	62.	64.	64.
ET 1000	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ET 1000	2.	19.	76.	73.	28.	35.	50.	38.	26.	35.	14.	16.	11.	9.	4.	6.
ET 1000	3.	18.	41.	52.	31.	39.	15.	22.	6.	14.	14.	7.	11.	5.	5.	5.
MC 1200	455.	2313.	3072.	1824.	896.	822.	744.	716.	575.	352.	226.	287.	359.	400.	390.	447.
MC 1200	13.	186.	287.	263.	44.	54.	79.	70.	51.	51.	38.	51.	49.	45.	52.	73.
MC 1200	16.	184.	139.	118.	74.	63.	39.	46.	16.	17.	18.	19.	22.	29.	30.	19.
MC 1200	27.	182.	292.	240.	203.	55.	43.	34.	93.	96.	96.	75.	31.	37.	39.	44.
MC 1200	12.	218.	292.	223.	106.	80.	79.	91.	69.	56.	44.	32.	37.	32.	25.	37.
MC 1200	16.	280.	469.	178.	58.	51.	70.	80.	84.	31.	22.	55.	91.	74.	74.	61.
MC 1200	1.	60.	151.	119.	41.	31.	45.	52.	72.	50.	26.	44.	70.	29.	10.	12.
MC 1200	290.	1462.	1571.	1287.	978.	881.	719.	574.	450.	326.	258.	245.	268.	257.	247.	310.
MC 1200	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MC 1200	2.	741.	870.	780.	526.	491.	276.	264.	195.	143.	133.	131.	173.	17.	17.	28.
MC 1200	177.	741.	870.	780.	526.	491.	276.	264.	195.	143.	133.	131.	173.	17.	17.	28.
MC 1200	94.	356.	452.	489.	203.	196.	124.	105.	99.	80.	64.	90.	90.	81.	81.	110.
MC 1200	97.	653.	1291.	1685.	690.	604.	372.	241.	309.	277.	241.	251.	336.	244.	226.	237.
MC 1200	36.	136.	226.	285.	177.	103.	70.	40.	102.	117.	113.	101.	119.	57.	41.	15.
MC 1200	138.	1698.	1969.	1345.	664.	598.	432.	545.	644.	1092.	619.	709.	1036.	592.	501.	464.
MC 1200	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MC 1200	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MC 1200	21.	97.	757.	3001.	1807.	1771.	2345.	1616.	1120.	263.	219.	157.	96.	101.	41.	41.
MC 1200	53.	535.	910.	763.	343.	367.	302.	209.	239.	247.	122.	120.	191.	121.	118.	113.
MC 1200	5.	61.	86.	128.	66.	55.	49.	47.	11.	25.	14.	19.	19.	26.	21.	26.
MC 1200	18.	94.	147.	164.	66.	83.	77.	41.	32.	23.	16.	12.	28.	32.	32.	36.
MC 1200	0.	21.	72.	79.	41.	31.	21.	23.	18.	18.	10.	10.	7.	4.	12.	12.
MC 1200	0.	11.	27.	45.	25.	26.	17.	14.	13.	8.	1.	6.	12.	12.	14.	14.
MC 1200	28.	105.	67.	53.	20.	101.	50.	43.	30.	30.	31.	26.	19.	17.	16.	25.
MC 1200	972.	2370.	3239.	3002.	1964.	2591.	1408.	1091.	560.	480.	317.	270.	468.	427.	365.	398.
MC 1200	164.	416.	1104.	1084.	451.	411.	379.	365.	273.	286.	199.	203.	227.	227.	220.	212.
MC 1200	15.	166.	364.	419.	186.	166.	172.	122.	122.	112.	93.	122.	122.	122.	122.	122.
MC 1200	72.	1053.	1843.	1765.	695.	635.	570.	156.	288.	211.	145.	168.	168.	168.	168.	168.

FIG. C-12: SAMPLE OUTPUT OF PLANNER, NO OPTIONS USED (Continued)

RAFFING	17	18	19	20	21	LENGTH OF SERVICE				25	26	27	28	29	30	31	RAFFING TOTAL
AM 0100	104	405	301	219	90	72	78	36	26	26	45	31	11	26	45	28	5102
AM 0150	86	86	81	40	37	20	26	6	4	4	8	11	3	1	5	0	956
AM 0200	125	156	166	71	34	39	25	28	11	11	8	11	5	1	7	0	4005
AM 0250	78	111	112	71	34	35	27	16	3	12	12	8	0	5	0	0	3711
AM 0300	105	207	196	150	55	47	58	18	12	18	18	8	1	6	5	2	2605
AM 0350	36	32	40	23	7	1	0	0	0	0	0	1	0	0	0	0	1691
AM 0400	1	4	3	5	18	3	7	6	0	0	0	1	3	1	1	0	56
AM 0450	45	77	75	54	18	7	2	5	0	0	3	1	1	2	0	0	3959
AM 0500	55	64	59	28	10	7	0	0	0	0	2	2	0	0	0	0	2753
AM 0550	22	120	126	108	48	36	26	1	0	0	0	0	0	0	0	0	1417
AM 0600	10	16	25	18	19	12	24	0	5	7	11	3	2	3	4	1	4026
AM 0650	17	26	27	14	8	12	10	3	1	4	1	1	0	0	1	0	1552
AM 0700	63	70	52	43	13	12	5	3	0	7	3	3	0	2	1	0	2001
AM 0750	125	125	97	71	35	43	25	12	7	8	6	1	1	4	6	1	4217
AM 0800	75	75	72	49	40	22	31	1	9	6	11	8	3	10	4	4	521
AM 0850	41	32	47	28	11	5	3	1	2	1	7	3	0	1	0	0	3761
AM 0900	19	14	13	6	2	2	0	1	0	0	0	0	0	0	0	0	2543
AM 0950	17	17	15	10	4	4	0	1	1	0	1	0	0	0	0	0	2130
AM 1000	4	12	6	4	1	9	3	5	6	9	3	3	0	0	0	0	516
AM 1050	422	414	317	214	62	49	41	20	15	2	3	7	2	2	4	5	5131
AM 1100	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5542
AM 1150	16	24	19	15	4	0	0	0	0	0	0	0	0	0	0	0	4972
AM 1200	0	2	3	0	0	1	0	0	0	0	0	0	0	0	0	0	2272
AM 1250	14	13	8	3	2	3	1	1	0	0	0	0	0	0	0	0	7
AM 1300	4	15	13	5	1	4	6	1	1	0	0	0	0	0	0	0	495
AM 1350	129	116	89	82	54	46	27	12	9	5	16	1	1	1	1	0	334
AM 1400	470	447	456	473	222	124	91	51	23	22	11	9	9	9	7	5	1077
AM 1450	64	36	19	37	10	11	7	3	2	0	1	0	0	0	0	0	16347
AM 1500	20	30	42	50	26	16	14	1	0	0	1	0	0	0	0	0	89
AM 1550	54	42	58	26	16	14	7	1	0	0	0	0	0	0	0	0	1020
AM 1600	38	12	29	24	14	14	7	1	1	1	2	2	1	0	1	0	1586
AM 1650	48	62	62	43	27	18	7	7	1	2	2	2	1	0	3	0	1954
AM 1700	21	29	22	22	10	6	2	1	2	0	1	0	0	0	0	0	410
AM 1750	380	440	456	205	111	95	81	58	35	41	26	1	6	12	21	10	12042
AM 1800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
AM 1850	27	17	21	11	7	7	4	2	0	0	0	0	0	0	0	0	417
AM 1900	244	244	242	119	104	85	72	42	20	15	7	7	4	10	10	7	6675
AM 1950	125	96	111	40	23	9	6	5	2	1	0	0	0	0	0	0	3111
AM 2000	264	326	287	295	142	119	101	6	31	31	16	16	10	12	11	4	8251
AM 2050	54	55	11	71	37	15	11	3	4	1	1	2	1	0	1	3	2161
AM 2100	895	914	894	527	86	78	90	5	35	31	2	2	1	0	1	0	18750
AM 2150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM 2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM 2250	44	55	38	14	15	11	11	3	2	0	0	0	0	0	0	0	11959
AM 2300	131	126	87	61	58	52	88	32	13	21	1	1	0	0	2	2	5451
AM 2350	20	20	15	14	4	4	3	2	1	0	0	0	0	0	0	0	707
AM 2400	41	37	22	14	8	3	2	0	6	3	0	0	0	0	0	0	1061
AM 2450	19	11	12	4	0	1	1	0	1	0	0	0	0	0	0	0	459
AM 2500	20	18	24	15	7	16	6	3	0	1	2	0	0	0	1	0	331
AM 2550	38	23	45	23	16	16	59	36	16	3	0	1	1	1	1	1	695
AM 2600	415	482	481	351	173	112	59	36	16	17	12	12	5	6	5	3	22214
AM 2650	177	267	233	143	85	61	50	16	10	17	10	10	6	3	12	4	7164
AM 2700	48	74	71	45	23	19	12	6	1	3	0	0	0	0	1	0	2651
AM 2750	278	275	246	210	67	80	43	10	5	9	7	7	1	5	4	1	9690
AM 2800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM 2850	225	281	311	255	133	80	31	22	20	9	8	5	2	0	5	1	1154
AM 2900	111	103	108	76	32	22	5	4	0	0	1	1	0	0	1	1	5750

FIG. C-12: SAMPLE OUTPUT OF PLANNER, NO OPTIONS USED (Continued)

HI 4100	231-	246-	244-	126-	23-	65-	68-	34-	17-	19-	12-	5-	6-	5-	153-
PH 4600	7-	5-	3-	2-	4-	0-	3-	0-	0-	0-	0-	0-	0-	0-	0-
ML 4700	4-	6-	7-	4-	2-	1-	4-	1-	5-	0-	0-	0-	0-	0-	0-
US 4800	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-
CU 5000	0-	0-	0-	10-	0-	5-	0-	5-	5-	15-	0-	0-	0-	0-	0-
EA 5100	13-	11-	11-	1-	5-	1-	1-	1-	0-	0-	0-	0-	0-	0-	0-
CE 5200	41-	25-	26-	27-	14-	10-	2-	2-	0-	0-	0-	0-	0-	0-	0-
EQ 5300	0-	2-	2-	0-	4-	2-	0-	4-	4-	5-	2-	4-	0-	0-	0-
EO 5410	51-	34-	37-	27-	13-	9-	10-	5-	1-	5-	6-	0-	3-	1-	1-
CU 5500	36-	32-	39-	24-	13-	16-	4-	5-	1-	3-	1-	0-	0-	0-	0-
BU 5600	38-	42-	54-	29-	12-	21-	7-	3-	1-	2-	0-	3-	1-	0-	0-
SM 5700	15-	9-	6-	11-	5-	2-	4-	2-	0-	1-	2-	0-	0-	0-	0-
UT 5800	32-	27-	24-	25-	12-	12-	8-	8-	5-	2-	4-	5-	0-	0-	0-
AF 6000	0-	20-	28-	38-	36-	38-	38-	26-	20-	32-	22-	8-	12-	27-	10-
AV 6100	0-	16-	23-	31-	29-	31-	31-	21-	16-	26-	18-	7-	10-	18-	8-
AD 6200	477-	515-	401-	251-	129-	142-	118-	35-	23-	60-	20-	9-	5-	15-	5-
ADH 6205	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-
ADJ 6206	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-
AI 6300	236-	295-	333-	265-	144-	78-	60-	28-	17-	19-	17-	6-	6-	6-	1-
AX 6310	40-	57-	44-	38-	22-	13-	6-	0-	1-	4-	0-	0-	0-	0-	0-
AM 6400	85-	86-	74-	87-	33-	23-	20-	7-	4-	2-	3-	1-	3-	0-	0-
AN 6500	107-	132-	169-	96-	52-	54-	54-	15-	14-	13-	14-	1-	6-	1-	1-
AO 6520	62-	62-	65-	64-	19-	14-	1-	1-	6-	3-	4-	0-	0-	0-	0-
AC 6600	47-	40-	78-	65-	45-	44-	30-	13-	4-	5-	6-	2-	3-	4-	2-
AB 6700	6-	14-	13-	13-	12-	12-	27-	8-	7-	7-	10-	3-	7-	5-	1-
ABE 6704	14-	23-	13-	15-	11-	12-	10-	3-	0-	1-	10-	3-	0-	0-	0-
ABF 6705	29-	25-	25-	25-	3-	15-	15-	6-	0-	0-	0-	0-	0-	0-	0-
ABM 6706	97-	63-	46-	24-	9-	12-	12-	7-	1-	0-	0-	0-	0-	0-	0-
AE 6800	174-	217-	268-	216-	99-	83-	41-	24-	10-	7-	10-	2-	1-	2-	0-
AM 6900	21-	41-	58-	66-	49-	49-	40-	5-	5-	13-	4-	2-	1-	2-	0-
AMS 6901	185-	221-	200-	142-	66-	53-	30-	10-	3-	4-	0-	0-	0-	0-	0-
AMH 6902	108-	136-	140-	94-	45-	27-	32-	12-	5-	4-	0-	1-	1-	1-	0-
APE 6903	76-	78-	56-	16-	16-	12-	3-	1-	3-	1-	3-	0-	0-	0-	0-
PR 7000	51-	47-	60-	38-	16-	12-	13-	3-	5-	5-	4-	0-	0-	0-	0-
AG 7100	38-	66-	76-	75-	21-	24-	15-	9-	3-	4-	1-	0-	2-	4-	1-
ID 7200	26-	31-	47-	45-	19-	14-	13-	10-	5-	7-	1-	0-	0-	1-	1-
AK 7300	97-	112-	100-	72-	46-	41-	52-	19-	6-	10-	6-	3-	2-	4-	0-
AS 7500	39-	53-	41-	40-	18-	21-	10-	3-	4-	2-	10-	1-	1-	1-	0-
ASE 7501	2-	3-	3-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-
ASH 7502	1-	1-	1-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-
ASH 7503	6-	4-	3-	3-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-
AZ 7400	113-	71-	69-	36-	20-	14-	11-	6-	6-	6-	0-	0-	0-	0-	0-
PH 7600	60-	65-	64-	36-	20-	21-	16-	9-	4-	3-	6-	1-	1-	4-	1-
PI 7700	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-
MM 8000	427-	457-	449-	298-	190-	134-	107-	98-	57-	61-	41-	10-	15-	64-	11-
OI 8100	61-	77-	80-	39-	22-	24-	18-	7-	5-	6-	16-	4-	1-	1-	0-
SN 8600	4-	0-	2-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-
FM 9000	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-
CN 9000	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-
AN 7000	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-
LUS	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-	0-
TOTAL	9696-	10380-	9852-	7069-	3456-	2740-	2168-	1146-	640-	790-	511-	189-	264-	396-	153-

FIG. C-12: SAMPLE OUTPUT OF PLANNER, NO OPTIONS USED (Continued)

100	6 PROJECT						
200							
300	4	7	2	1	1	1	
400	123	242972	117201				
500	12	14	16	17	19	20	
600	410	242412	110602				
700	0	0	1	1	1	1	
800	6705	241352	230620				
900	199	199	199	199	210	214	
1000	6709	242622	222408				
1100	124	125	128	132	135	140	
1200	114901	242827	1578	1980	2		
1300	1	19					
1400	4	10					
1500	230620	241562	1578	1984	4		
1600	1	5					
1700	2	15					
1800	4	5					
1900	6	30					
2000	1978	1985	2	4			
2100	114403	244112					
2200	114404	244112					
2300	1	10.5					
2400	2	10.5					
2500	3	10.5					
2600	4	9.0					
2700	1978	1985	2	2			
2800	211820	241542					
2900	211820	241562					
3000	3	5.0					
3100	6	10.0					
3200	1	2					
3300	1977	20.00					
3400	1980	25.00					
3500	2	25.00	6	1			
3600	244572	244582					
3700	0.0	0.0	2.5	5.0	7.5	9.0	

FIG. C-13: SAMPLE INPUT TO PLANNER, ALL OPTIONS USED

PROJECTION RUN OF THE PLANNER MODEL

ENLISTED REQUIREMENTS WILL BE COMPUTED FOR 6 YEARS

REQUIREMENTS ARE NOT BEING TRANSFORMED FROM RATING/PAYGRADE TO RATING/LOS

THE FOLLOWING UPDATES ARE REPLACING THE NARM ONES IN THE INPUT FORCES
THESE UPDATES ARE IN EFFECT FOR THIS RUN ONLY

ACT CODE	PE CODE	PU CODE	1978	1979	1980	1981	1982	1983
125	242972	117201	12.	14.	16.	17.	19.	20.
410	242412	116602	0.	0.	1.	1.	1.	1.
6705	241352	230620	199.	199.	199.	199.	210.	234.
6707	242622	222402	124.	125.	126.	132.	135.	140.

THE FOLLOWING FACTORS ARE REPLACING THE NARM ONES IN THIS RUN ONLY

PU	PE	YEARS	FACTOR	NAME
115901	242622	1978-1980	19.	BASE OPS SUPPORT
115901	242622	1978-1980	10.	RECRUITE + EXAMINE
230620	241562	1978-1984	5.	BASE OPS SUPPORT
230620	241562	1978-1984	15.	TRAINING SUPPORT
230620	241562	1978-1984	5.	RECRUITE + EXAMINE
230620	241562	1978-1984	30.	ON BOARD

THE FOLLOWING FACTORS ARE BEING INCREASED/DECREASED BY THE SPECIFIED PERCENT FOR THIS RUN ONLY

YEARS	PERCENT CHANGE	FACTOR	PU/PE
1978-1985	10.50	BASE OPS SUPPORT	114403/244112
			114404/244112
1978-1985	10.50	TRAINING SUPPORT	114403/244112
			114404/244112
1978-1985	10.50	MEDICAL SUPPORT	114403/244112
			114404/244112
1978-1985	9.00	RECRUITE + EXAMINE	114403/244112
			114404/244112
1978-1985	5.00	MEDICAL SUPPORT	211820/241542
			211820/241562
1978-1985	10.00	ON BOARD	211820/241542
			211820/241562

THE USER IS CHANGING THE PERCENT THE NARM VARIES THE FOLLOWING SUPPORT AREAS WITH THE FORCES:

SUPPORT AREA	YEAR	NARM PERCENT	USER PERCENT
BASE OPS SUPPORT	1979	12.77	20.00
	1980	12.85	25.00

THE USER IS CREATING A VARIABLE SUPPORT AREA COMPRISING THE FOLLOWING PROGRAM ELEMENTS:

244572 244582

THIS SUPPORT AREA IS 25.00 PERCENT VARIABLE

THE SUPPORT AREA WILL VARY WITH THE FOLLOWING PROXIES:

SHIP FORCES
BASE OPS SUPPORT

FIXED REQUIREMENTS ARE BEING CHANGED BY THE FOLLOW PERCENTAGES:

YEAR	PERCENT
1980	2.50
1981	5.00
1982	7.50
1983	9.00

FIG. C-14: SAMPLE OUTPUT OF PLANNER, ALL OPTIONS USED

SHIP NAME	ACT CODE	PL CODE	PU CODE	1978	1979	1980	1981	1982	1983
AD	121	242972	117211	12.	14.	16.	17.	19.	20.
AD	123	242972	117203	10.	0.	0.	0.	0.	0.
CGN	382	242912	111601	1.	1.	1.	1.	1.	1.
CGN	382	242912	1116.5	2.	6.	6.	6.	6.	6.
CV	403	241122	110205	1.	1.	1.	1.	1.	1.
CVN	407	241122	110303	1.	1.	1.	1.	1.	1.
ED	441	242932	112210	17.	18.	19.	22.	22.	22.
DD	441	242932	112212	8.	14.	15.	12.	12.	12.
SS	693	242812	110918	2.	2.	7.	7.	8.	9.
SSN	697	242812	111004	3.	2.	2.	1.	1.	1.
CVV	410	242412	110602	0.	0.	1.	1.	1.	1.

AIR NAME	ACT CODE	PL CODE	PU CODE	1978	1979	1980	1981	1982	1983
SM-2	6635	242432	207275	47.	49.	59.	65.	60.	65.
UH-46	6635	242622	217619	15.	15.	12.	10.	10.	10.
A-6	6705	241342	220810	25.	30.	40.	50.	55.	60.
A-7	6705	241352	230620	199.	169.	159.	159.	210.	234.
F-14	6710	241442	220210	103.	113.	115.	117.	118.	119.
EA-58	6766	241542	211820	76.	79.	71.	70.	70.	70.
EA-68	6766	241562	211820	2.	5.	15.	20.	25.	30.
EA-4	6766	244532	221632	43.	34.	30.	30.	30.	30.
F-3C	6707	242622	222408	124.	125.	128.	132.	135.	140.

FIG. C-14: SAMPLE OUTPUT OF PLANNER, ALL OPTIONS USED (Continued)

Year 2

MATCH ON DIRECT FACTOR UPDATE - PU/PE = 114901/242822
 FACTOR 1 CHANGED FROM 17.50 TO 19.00
 FACTOR 4 CHANGED FROM 7.00 TO 10.00

MATCH ON PERCENTAGE FACTOR UPDATE - PU/PE = 114403/244112
 FACTOR 1 CHANGED FROM 6.00 TO 6.63
 FACTOR 2 CHANGED FROM 42.00 TO 46.41
 FACTOR 3 CHANGED FROM 6.00 TO 6.63
 FACTOR 4 CHANGED FROM 2.00 TO 2.10

MATCH ON PERCENTAGE FACTOR UPDATE - PU/PE = 114404/244112
 FACTOR 1 CHANGED FROM 6.00 TO 6.63
 FACTOR 2 CHANGED FROM 42.50 TO 46.96
 FACTOR 3 CHANGED FROM 6.00 TO 6.63
 FACTOR 4 CHANGED FROM 2.00 TO 2.10

MATCH ON DIRECT FACTOR UPDATE - PU/PE = 230620/241562
 GNEQARD FACTOR CHANGED FROM 20.00 TO 30.00
 FACTOR 1 CHANGED FROM 0.00 TO 5.00
 FACTOR 2 CHANGED FROM 9.00 TO 15.00
 FACTOR 4 CHANGED FROM 0.00 TO 5.00

MATCH ON PERCENTAGE FACTOR UPDATE - PU/PE = 211820/241542
 GNEQARD FACTOR CHANGED FROM 48.00 TO 52.80
 FACTOR 3 CHANGED FROM 1.00 TO 1.05

MATCH ON PERCENTAGE FACTOR UPDATE - PU/PE = 211820/241562
 GNEQARD FACTOR CHANGED FROM 36.00 TO 39.60
 FACTOR 3 CHANGED FROM 1.00 TO 1.05

VARIABLE REQUIREMENTS FOR FORCE SUPPORT AREA BASE OPS SUPPORT IS BEING CHANGED 56.62 PERCENT

FIG. C-14: SAMPLE OUTPUT OF PLANNER, ALL OPTIONS USED (Continued)

VARIANT ENLISTED REQUIREMENTS FOR FY1979

ALL NAVY

RAFFINE	E-9	E-8	E-7	E-6	PAYGRADE E-5	E-4	E-3	E-2	E-1	PAYING TOTAL
NA 0120	47	116	147	1331	1471	2154	220	0	0	5597
NA 0130	19	55	193	245	0	0	0	0	0	512
NA 0200	19	26	150	474	661	935	252	0	0	2596
SM 3150	17	23	161	355	535	828	262	0	0	2521
DS 0100	20	134	127	1055	1446	1966	2183	0	0	7116
EN 0350	2	23	121	156	434	397	275	0	0	1447
SI 0400	14	0	0	0	0	0	0	0	0	14
316 0431	6	71	173	592	819	953	720	0	0	3321
315 0494	0	91	142	316	528	765	156	0	0	2056
OT 0450	0	1	6	23	21	21	11	0	0	87
FM 0503	52	34	218	501	752	808	228	0	0	2556
GM 0609	17	63	0	0	0	0	0	0	0	20
GMM 3501	0	0	75	215	248	292	172	0	0	1067
GMT 0502	3	16	53	310	350	435	144	0	0	1311
GMC 0604	0	0	263	524	853	845	628	0	0	3117
FT 0800	132	209	0	0	0	0	0	0	0	303
116 JE01	0	0	269	555	742	692	335	0	0	2562
F78 0902	0	0	161	571	748	1055	332	0	0	2252
FTM 3003	0	0	68	155	225	247	0	0	0	696
MT 3913	0	0	87	272	440	685	0	0	0	1494
HM 0900	1	2	7	6	6	10	1	0	0	33
ET 1003	76	194	721	1875	0	0	0	0	0	2466
ETA 1301	0	0	0	0	1209	1439	261	0	0	2909
ETM 1002	0	0	0	0	1653	1693	231	0	0	3576
PS 1010	3	30	162	332	496	528	11	0	0	1521
PI 1080	4	0	0	0	0	0	0	0	0	4
IM 1100	0	7	29	72	110	120	28	0	0	368
GM 1200	0	6	24	54	73	78	14	0	0	250
MC 1403	20	24	130	332	0	0	0	0	0	505
CT 1403	50	131	592	1116	1632	2462	1746	0	0	7734
CTA 1622	1	2	16	31	22	16	7	0	0	92
CTM 1633	1	1	4	5	11	5	4	0	0	32
CTM 1644	1	0	7	25	26	32	0	0	0	69
CTM 1655	1	0	4	15	16	22	7	0	0	66
CTI 1655	1	1	4	16	16	23	12	0	0	73
VI 1700	0	0	2	14	19	7	3	0	0	46
CTM 1701	16	20	433	731	920	1566	1456	0	0	2220
LN 1721	0	0	0	0	0	0	0	0	0	0
LN 1750	1	2	10	28	35	0	0	0	0	73
PM 1800	32	56	370	553	723	839	785	0	0	3330
DP 1903	2	8	71	151	245	350	343	0	0	1172
SK 2000	50	132	493	803	1163	1488	740	0	0	4862
DM 2100	2	11	16	372	267	359	229	0	0	1123
MS 2200	53	122	578	1772	2464	3077	2802	0	0	16764
SO 2500	0	0	0	0	1	1	0	0	0	0
CS 2700	0	0	0	0	0	0	0	0	0	0
IS 2300	0	0	17	51	114	135	167	0	0	431
SM 2400	17	21	67	63	650	1166	1029	0	0	3600
JO 2600	1	3	11	30	43	172	19	0	0	276
PC 2700	2	4	21	68	163	303	58	0	0	617
LI 3100	0	5	17	48	88	84	29	0	0	246
DA 3200	0	0	3	21	31	31	6	0	0	108
MU 3300	2	0	5	4	4	5	18	0	0	44
MM 3700	208	513	1182	3618	4720	6272	1266	0	0	17640

FIG. C-14: SAMPLE OUTPUT OF PLANNER, ALL OPTIONS USED (Continued)

CN 600	69.	76.	188.	607.	999.	1321.	492.	0.	0.	0.	411.
PM 300	5.	26.	111.	343.	978.	565.	152.	0.	0.	0.	124.
SM 400	96.	145.	456.	1172.	1924.	2242.	1722.	0.	0.	0.	8356.
BR 420	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
EM 410	107.	267.	649.	1546.	1928.	3045.	1045.	0.	0.	0.	8529.
IC 420	36.	301.	301.	630.	1314.	1514.	518.	0.	0.	0.	4566.
MT 430	50.	143.	597.	1416.	2177.	2724.	732.	0.	0.	0.	7707.
PM 450	0.	0.	0.	28.	25.	31.	3.	0.	0.	0.	97.
PL 470	0.	5.	16.	27.	31.	39.	18.	0.	0.	0.	130.
GS 440	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CU 500	7.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
EA 510	0.	1.	4.	13.	7.	8.	0.	0.	0.	0.	35.
CE 510	0.	2.	14.	32.	41.	30.	9.	0.	0.	0.	137.
LO 530	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
EO 540	0.	4.	22.	52.	51.	45.	22.	0.	0.	0.	201.
CM 550	0.	8.	11.	41.	37.	37.	10.	0.	0.	0.	131.
BU 560	0.	6.	30.	65.	64.	65.	16.	0.	0.	0.	227.
SM 570	0.	3.	11.	28.	23.	14.	5.	0.	0.	0.	28.
UT 580	2.	5.	11.	34.	38.	30.	7.	0.	0.	0.	127.
AT 610	261.	0.	0.	0.	0.	0.	0.	0.	0.	0.	127.
AV 610	189.	0.	0.	0.	0.	0.	0.	0.	0.	0.	127.
AD 620	0.	320.	645.	1806.	2004.	2201.	1095.	0.	0.	0.	2871.
ACR 620	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ADJ 620	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AT 610	0.	191.	495.	1179.	2444.	2332.	1155.	0.	0.	0.	7955.
AE 610	0.	41.	112.	371.	447.	413.	144.	0.	0.	0.	1531.
AN 610	6.	81.	197.	384.	540.	611.	413.	0.	0.	0.	2245.
AD 650	10.	22.	294.	838.	1561.	1324.	1166.	0.	0.	0.	4764.
AO 650	0.	111.	178.	512.	751.	771.	325.	0.	0.	0.	2649.
AC 650	4.	25.	78.	196.	308.	223.	140.	0.	0.	0.	582.
AS 670	36.	51.	0.	0.	0.	0.	0.	0.	0.	0.	57.
ACE 670	0.	0.	71.	137.	241.	362.	368.	0.	0.	0.	1175.
ADF 670	0.	0.	67.	112.	191.	371.	255.	0.	0.	0.	1000.
ADM 670	0.	0.	94.	236.	345.	624.	420.	0.	0.	0.	1718.
AE 650	0.	135.	430.	1165.	1717.	1751.	1216.	0.	0.	0.	6031.
AM 690	0.	276.	0.	0.	0.	0.	0.	0.	0.	0.	276.
ANS 690	0.	0.	404.	994.	1362.	1522.	1613.	0.	0.	0.	5553.
AMM 672	0.	0.	278.	856.	1093.	1164.	1150.	0.	0.	0.	4769.
AME 690	0.	0.	126.	457.	559.	529.	519.	0.	0.	0.	2150.
PR 700	1.	5.	30.	151.	373.	369.	188.	0.	0.	0.	1187.
AG 710	3.	8.	27.	71.	72.	187.	62.	0.	0.	0.	389.
TD 720	5.	15.	57.	184.	241.	207.	47.	0.	0.	0.	745.
AR 730	16.	7.	98.	365.	545.	663.	486.	0.	0.	0.	2175.
AS 750	10.	14.	37.	139.	0.	0.	0.	0.	0.	0.	201.
ASE 750	0.	0.	0.	64.	104.	104.	45.	0.	0.	0.	234.
ASM 750	0.	0.	0.	76.	21.	21.	45.	0.	0.	0.	203.
AZ 760	1.	0.	0.	0.	157.	141.	167.	0.	0.	0.	405.
PM 760	1.	16.	124.	409.	548.	691.	505.	0.	0.	0.	2897.
PT 770	0.	0.	24.	107.	189.	211.	78.	0.	0.	0.	656.
MM 770	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MT 770	35.	117.	587.	895.	1266.	1572.	2535.	0.	0.	0.	7295.
CT 810	5.	11.	68.	130.	207.	271.	421.	0.	0.	0.	1206.
FM 810	0.	0.	0.	0.	0.	0.	55288.	0.	0.	0.	3147.
CM 810	0.	0.	0.	0.	0.	0.	14935.	0.	0.	0.	1611.
CM 810	0.	0.	0.	0.	0.	0.	164.	0.	0.	0.	324.
CM 810	0.	0.	0.	0.	0.	0.	12249.	0.	0.	0.	1574.
CM 810	0.	0.	0.	0.	0.	0.	100281.	0.	0.	0.	286733.
PAGEFACE	1799.	4343.	15646.	38476.	93204.	66626.	100281.	0.	0.	0.	6561.
TOTAL											

FIG C-14: SAMPLE OUTPUT OF PLANNER, ALL OPTIONS USED (Continued)

VARIABLE ENLISTED REQUIREMENTS FOR FY1979

SUMMARY TABLE

RATING	TOTAL	PERCENT	RATING	TOTAL	PERCENT	RATING	TOTAL	PERCENT
UM	5597.	1.95	CYA	0.	0.00	AV	129.	0.07
MA	512.	0.18	LN	75.	0.03	AD	8871.	3.09
QH	2696.	0.94	PN	3330.	1.16	ADP	0.	0.00
SM	2521.	0.88	DP	1172.	0.41	ADJ	0.	0.00
..	..	..	SK	482.	1.70	AT	7995.	2.79
..	..	..	DK	1123.	0.39	AX	1531.	0.53
..	1447.	0.50	PS	1078.	3.76	AW	2245.	0.78
..	..	..	SD	0.	0.00	AD	4764.	1.66
..	3321.	1.16	CS	0.	0.00	AO	2649.	0.92
..	2059.	0.72	IS	431.	0.15	AC	982.	0.34
..	87.	0.03	SH	3660.	1.28	AB	89.	0.03
..	2596.4	0.91	JO	279.	0.10	ABE	1179.	0.41
..	..	..	PC	617.	0.22	ARF	1000.	0.35
..	1007.	0.35	LI	249.	0.09	ABH	1732.	0.61
..	1311.	0.46	DH	108.	0.04	AE	5633.	2.31
..	3117.	1.09	..	..	..	..	..	..
..
..	303.	0.11	..	..	..	..	..	..
..	2562.	0.89	..	..	..	..	..	..
..	2892.	1.01	..	..	..	..	..	..
..	696.	0.24	..	..	..	..	..	..
..	1484.	0.52	..	..	..	..	..	..
..	33.	0.01	..	..	..	..	..	..
..	2265.	0.80	..	..	..	..	..	..
..	2907.	1.01	..	..	..	..	..	..
..	3576.	1.25	..	..	..	..	..	..
..	1521.	0.53	..	..	..	..	..	..
..	4.	0.00	..	..	..	..	..	..
..	365.	0.13	..	..	..	..	..	..
..	250.	0.09	..	..	..	..	..	..
..	505.	0.18	..	..	..	..	..	..
..	7734.	2.70	..	..	..	..	..	..
..	92.	0.03	..	..	..	..	..	..
..	32.	0.01	..	..	..	..	..	..
..	89.	0.03	..	..	..	..	..	..
..	65.	0.02	..	..	..	..	..	..
..	73.	0.03	..	..	..	..	..	..
..	45.	0.02	..	..	..	..	..	..
..	5220.	1.82	..	..	..	..	..	..

FIG. C-14: SAMPLE OUTPUT OF PLANNER, ALL OPTIONS USED (Continued)

VARIABLE ENLISTED REQUIREMENTS FOR FY1979

SUMMARY TABLE

PAYGRADE	TOTAL	PERCENT
E-9	1790.	0.02
E-8	4343.	1.51
E-7	15440.	5.38
E-6	38470.	13.42
E-5	53204.	18.56
E-4	66624.	23.24
E-3	100281.	34.97
E-2	0.	0.00
E-1	6581.	2.30
P.O.	179871.	62.73
NON P.O.	106862.	37.27

YEAR 2

PE 244572 IS BEING MADE 25.00 PERCENT VARIABLE
 ITS PROXY CHANGED 1.31 PERCENT
 TOTAL ENDSTRENGTH IS 3706.00
 BASE CASE VARIABLE ENDSTRENGTH IS 526.50
 FIXED ENDSTRENGTH IS 2779.50
 CURRENT CASE VARIABLE ENDSTRENGTH IS 938.64

PE 244582 IS BEING MADE 25.00 PERCENT VARIABLE
 ITS PROXY CHANGED 1.31 PERCENT
 TOTAL ENDSTRENGTH IS 444.20
 BASE CASE VARIABLE ENDSTRENGTH IS 111.05
 FIXED ENDSTRENGTH IS 333.15
 CURRENT CASE VARIABLE ENDSTRENGTH IS 112.51

FIG. C-14: SAMPLE OUTPUT OF PLANNER, ALL OPTIONS USED (Continued)

TOTAL ENLISTED REQUIREMENTS FOR FY1979
ALL NAVY

RATING	E-9	E-8	E-7	E-6	PAYGRADE E-5	E-4	E-3	E-2	E-1	PAYING TOTAL
BM 0100	160.	303.	1240.	2025.	2520.	2853.	296.	0.	0.	5605.
MA 0150	39.	99.	303.	528.	0.	0.	0.	0.	0.	756.
DM 0200	67.	119.	725.	892.	892.	1372.	283.	0.	0.	4311.
SM 0250	24.	54.	240.	614.	768.	919.	817.	0.	0.	3235.
OS 0300	67.	208.	503.	1524.	1788.	2191.	2112.	0.	0.	6661.
EA 0350	7.	47.	215.	148.	577.	415.	283.	0.	0.	1893.
ST 0400	56.	0.	0.	0.	0.	0.	0.	0.	0.	56.
SG 0450	0.	113.	307.	802.	982.	1072.	729.	0.	0.	4032.
SY 0500	0.	144.	251.	544.	708.	935.	172.	0.	0.	2751.
ST 0550	15.	39.	110.	298.	361.	374.	221.	0.	0.	1618.
TM 0600	82.	49.	375.	824.	1112.	1212.	340.	0.	0.	4034.
GM 0650	53.	139.	0.	0.	0.	0.	0.	0.	0.	164.
GM 0700	0.	0.	129.	357.	356.	314.	173.	0.	0.	1354.
GM 0750	12.	48.	152.	501.	532.	571.	187.	0.	0.	2303.
GM 0800	0.	0.	448.	922.	1213.	1329.	674.	0.	0.	4242.
FT 0850	172.	347.	455.	793.	853.	762.	0.	0.	0.	3264.
FT 0900	0.	0.	249.	801.	659.	1231.	352.	0.	0.	1547.
FT 0950	0.	0.	104.	230.	269.	323.	0.	0.	0.	959.
FM 0001	0.	0.	163.	423.	569.	943.	0.	0.	0.	2137.
MT 0010	13.	24.	82.	125.	125.	171.	49.	0.	0.	514.
MM 0020	164.	395.	1574.	3205.	2434.	2610.	0.	0.	0.	9138.
ET 1000	0.	0.	0.	0.	2434.	2610.	564.	0.	0.	5547.
ET 1001	0.	0.	0.	0.	2434.	2610.	269.	0.	0.	4379.
ET 1002	13.	47.	120.	556.	748.	715.	16.	0.	0.	2274.
DS 1010	7.	0.	0.	0.	0.	0.	0.	0.	0.	7.
PT 1020	0.	0.	0.	0.	0.	0.	0.	0.	0.	496.
TM 1100	0.	14.	40.	114.	152.	139.	31.	0.	0.	335.
DM 1200	39.	10.	38.	80.	56.	94.	17.	0.	0.	1193.
NC 1400	166.	412.	1293.	2635.	3958.	4815.	3055.	0.	0.	16153.
CT 1611	15.	42.	150.	329.	329.	431.	100.	0.	0.	1814.
CT 1612	15.	29.	101.	194.	267.	393.	0.	0.	0.	1228.
CT 1633	25.	47.	136.	376.	608.	595.	255.	0.	0.	1546.
CT 1644	16.	34.	146.	269.	351.	474.	0.	0.	0.	1546.
CT 1655	23.	58.	150.	323.	412.	556.	78.	0.	0.	1810.
CT 1665	17.	17.	103.	224.	256.	161.	0.	0.	0.	1213.
YM 1700	117.	315.	1256.	2508.	2907.	3008.	2011.	0.	0.	0.
YM 1701	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
YM 1702	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
YM 1703	12.	23.	77.	137.	169.	3.	0.	0.	0.	417.
YM 1704	112.	156.	786.	1536.	1741.	1333.	996.	0.	0.	4755.
DP 1900	29.	56.	270.	601.	767.	869.	528.	0.	0.	3134.
DP 1901	137.	310.	1170.	1939.	2333.	2241.	945.	0.	0.	2803.
SA 2000	16.	55.	144.	735.	562.	394.	280.	0.	0.	2165.
OK 2100	135.	291.	1129.	3351.	4141.	4388.	3346.	0.	0.	16181.
MS 2200	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SD 2500	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CS 2280	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
IS 2500	15.	32.	178.	143.	13076.	2624.	113.	0.	0.	13999.
SM 2600	76.	125.	291.	1071.	1106.	1511.	1075.	0.	0.	5655.
SM 2601	7.	25.	82.	131.	156.	235.	40.	0.	0.	713.
JO 2600	15.	15.	42.	136.	269.	443.	142.	0.	0.	1064.
PC 2700	15.	7.	33.	122.	154.	154.	60.	0.	0.	460.
LI 3100	2.	3.	20.	85.	127.	85.	12.	0.	0.	333.
DM 3200	24.	41.	56.	188.	177.	287.	84.	0.	0.	856.
MO 3300	364.	783.	1843.	4644.	5718.	7153.	1393.	0.	0.	22858.

FIG. C-14: SAMPLE OUTPUT OF PLANNER, ALL OPTIONS USED (Continued)

TOTAL ENLISTED REQUIREMENTS FOR FY1979

SUPMARY TABLE

RATING	TOTAL	PERCENT	RATING	TOTAL	PERCENT	RATING	TOTAL	PERCENT
DM	9405.	2.02	CYN	0.	0.00	AV	290.	0.06
MA	7564	1.21	LN	417.	0.09	AD	12524.	2.69
GM	4011.	0.86	PN	6705.	1.44	ADR	0.	0.00
SM	3235.	0.69	DP	3134.	0.67	ADJ	0.	0.00
OS	8695.	1.87	SK	8505.	1.91	AT	11279.	2.42
EW	1893.	0.41	OR	2165.	0.46	AX	2150.	0.46
ST	55.	0.01	MS	16781.	3.60	AW	3802.	0.84
STG	4002.	0.86	SD	0.	0.00	AO	6045.	1.30
SFS	2757.	0.59	CS	0.	0.00	AR	1311.	0.27
CT	1419.	0.30	IS	13557.	3.00	AC	2651.	0.57
TM	4314.	0.92	SH	5435.	1.17	AB	144.	0.00
GM	194.	0.04	JO	710.	0.15	ABE	1493.	0.32
GMM	1354.	0.29	PC	1264.	0.23	ABF	1421.	0.31
GMI	2003.	0.43	LT	460.	0.10	ABH	2542.	0.55
GMG	4282.	0.92	DM	333.	0.07	AC	8925.	1.92
FT	522.	0.11	HU	856.	0.19	AM	372.	0.08
FTG	3264.	0.70	NH	22258.	4.78	AMS	7610.	1.63
FTB	3547.	0.76	EN	7209.	1.55	AMH	6152.	1.32
FTM	755.	0.21	HP	2454.	0.53	AME	2714.	0.58
HT	2197.	0.47	BT	5902.	1.25	PR	1715.	0.37
HN	514.	0.11	BR	0.	0.00	AG	1560.	0.33
ET	5135.	1.10	CH	11557.	2.49	TD	1502.	0.32
EYN	5547.	1.19	IC	5764.	1.24	AK	1935.	0.42
ETR	4977.	1.07	HT	10406.	2.23	AS	494.	0.11
OS	2274.	0.49	PH	137.	0.03	ASE	474.	0.10
PI	7.	0.00	PL	181.	0.04	ASH	424.	0.09
IM	496.	0.11	GS	0.	0.00	ASH	685.	0.15
GM	335.	0.07	CU	40.	0.01	AZ	3305.	0.71
MC	1573.	0.33	EA	307.	0.07	PH	1595.	0.34
PM	16353.	3.51	CE	1248.	0.27	PT	0.	0.00
LTT	1634.	0.35	EO	36.	0.01	NH	23618.	5.07
CTA	895.	0.19	EO	1760.	0.38	DT	3470.	0.74
CTH	1820.	0.39	CH	1312.	0.28	SM	52766.	11.33
CTD	1585.	0.34	BU	2383.	0.51	FN	21425.	4.60
CTR	1954.	0.42	SW	213.	0.17	CN	775.	0.17
CTI	910.	0.20	UT	1170.	0.25	AN	18719.	4.02
TM	12123.	2.60	AF	350.	0.08			

TOTAL ENLISTED REQUIREMENTS FOR FY1979

SUPMARY TABLE

PAYGRADE	TOTAL	PERCENT
E-9	4073.	0.87
E-8	9200.	1.97
E-7	31146.	6.69
E-6	71107.	15.26
E-5	103226.	22.16
E-4	98146.	21.07
E-3	136115.	29.22
E-2	0.	0.00
E-1	12893.	2.77
P.O.	316890.	68.02
NON P.O.	149008.	31.98

FIG. C-14: SAMPLE OUTPUT OF PLANNER, ALL OPTIONS USED (Continued)

APPENDIX D

NOTES ON PROCESSING ENREP DATA FILES

APPENDIX D

NOTES ON PROCESSING ENREP DATA FILES

RENQUAL/SPECIAL Enlisted Billet File

1. The RENQUAL/SPECIAL file is created and maintained by OP-102 on an IBM machine which should produce a 9-track, EBCDIC file. The file usually requires six to nine reels of tape.
2. Run ENREP routine EXTRACT. If there are any changes to the RENQUAL/SPECIAL format, the DATA DIVISION of the input file will need to be changed. EXTRACT will create the RENQUAL/EXTRACT file, which should use only two reels of tape.
3. Next, sort the RENQUAL/EXTRACT file by ACT code and then by PE code, using the ENREP SORT program. Before executing the SORT program, be sure that lines 3000 and 4300 contain the correct labels for input and output, and that ACT precedes PE in lines 6350 and 6400. The SORT program will then create the RENQUAL/ACTPE file.
4. Finally, sort the RENQUAL/ACTPE file by PE code and then by ACT code. Again, be sure that lines 3000 and 4300 contain the correct labels, but now PE should precede ACT in lines 6350 and 6400. The SORT program will then create RENQUAL/PEACT. Although either the RENQUAL/EXTRACT or the RENQUAL/ACTPE file could be input to the SORT program, it will execute faster if the latter is used.

ACT/PE/PU Dictionary

1. This dictionary exists for ships and aircraft and is used by many of the ENREP routines.
2. Each time a new RENQUAL/SPECIAL file is received, run the LISTACT program. It will list every ACT/PE combination on the RENQUAL/ACTPE file. Verify that all ship and aircraft combinations are in the dictionary, and that all ACT/PE combinations in the dictionary are in the file. Then the dictionary should be updated to reflect any changes.
3. Each time a new NARM/FORCES file, ship or aircraft, is received, verify that each PE/PU combination is in the dictionary. If not, it should be added.
4. The dictionaries must be sorted by ACT code, then by PE code, and finally by PU code. The ENREP DICT/SORT program will do this sort if it is needed. Be sure that lines 2700 and 3900 have the correct labels.

NARM Ship and Aircraft Forces Data

1. The NARM ship and aircraft forces files are obtained from OP-901M. They will most likely be 7-track, BCD tapes with unblocked records 191 characters long.
2. Verify that they are sorted by PU and then by PE. If not, modify one of the ENREP SORT programs to do it. Also, verify that the first record is a label. If not, add one.
3. If the format of these files has changed, the format at line 8800 for FORCES/AIR and at line 6700 for FORCES/SHIP must be modified. Otherwise, the files are ready to be used.

NARM Ship and Aircraft Factors Data

1. The NARM ship and aircraft factors file is obtained from OP-901M. It will most likely be a 7-track, BCD tape with unblocked records 178 characters long.
2. The file must be sorted by PU code, then by PE code, and finally by factor sequence number. The ENREP program FACTORS/FACSORT was written to do this sort. Be sure that lines 2700 and 3900 contain the correct labels. After the sort, break the file into a ship version and an aircraft version, and delete the first record, a label. Note that PU codes beginning with a "1" are ships, and those beginning with a "2" are aircraft.
3. If the format of this file has been changed, the DATA DIVISION of the FACTORS/FACSORT program and the format at line 52800 in FACTORS must be changed. Otherwise, the file is ready to be used.

NARM Enlisted Inventory Projections

1. The NARM enlisted inventory projections file is also obtained from OP-901M. It will most likely be a 7-track, BCD tape with unblocked records 192 characters long.
2. Verify that the tape is sorted by PE code in ascending order. If not, modify one of the ENREP SORT programs to do this. Also, verify that the first two records are dummy labels. If not, add two such records.
3. If the format of this file has changed, the format at line 48300 in TOTAL must be changed. Otherwise, the file is ready to be used.

PERS-2x Actual Enlisted Inventory

1. At the end of each fiscal year, PERS-2x counts the enlisted inventory by rating, paygrade, and length of service. This data file is created by an IBM machine and has a 9-track, EBCDIC format.
2. If there has been a change to the tape format, the format at line 175500 in routine PLANNER must be changed. Read the comment at lines 177700-178600 and modify the code which follows it if that has been changed. Otherwise, the file is ready to be used.